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MACFORMAT

ISSUE 19 ■ DECEMBER 1994 ■ £3.95 WITH HD DISK

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For more details see back cover of magazine

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DISK 19
DEC 94
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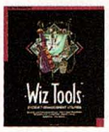

WizTools a collection of invaluable utilities which make using your Mac easier and more enjoyable. The set includes backup with synchronisation, keystroke recorder, worldclock, launcher, finder tools, submenu and much more... **SRP £69.00**

WizTools PB is a collection for PowerBook users. Includes Security, Battery management, Remote Access support, Synchronisation and PB Ease to make using your PowerBooks' trackball easier.

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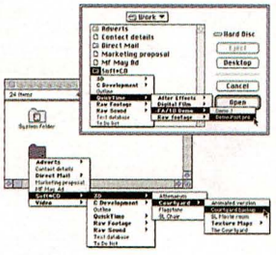
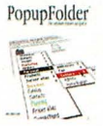


Popup Folder is the ultimate Finder navigator. Gain instant access to any folder or drive icon, even from open and save dialogs, up to 5 levels deep. You can simply drag-and-drop files into these menus. Navigating server volumes has never been so easy! Additionally, Popup Folder will add hierarchical menus to your Apple Menu.



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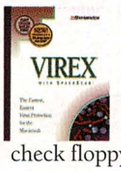
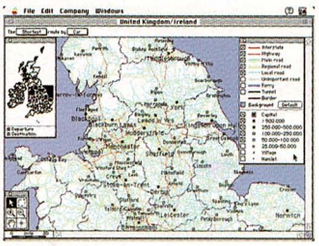


Virex is the fastest and safest anti-virus software for the Macintosh. It can be set to scan your hard disc on start-up or shut-down and check floppy disks as they are inserted giving you complete security.
For ultimate peace of mind subscribe to the automatic update service to ensure that you'll always have the latest version.

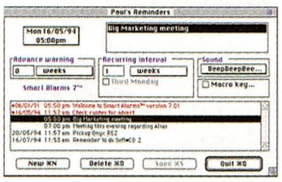
SRP £69.99 With subscription **SRP £149.00**



SignPost is the automatic route planner that will generate maps and instructions on how to get from A to B (via C, if necessary). You can purchase additional country modules to suit your travelling needs, both in Europe and the US. Even plan a route from country to country.

SRP £99.00 (with UK Map). Extra countries **SRP £59.00**

Smart Alarms 7 has a time-proven design and is the simplest and most effective reminder system available. You can easily set up one-off or repeating reminders which'll pop up no matter which application you're using. Smart Alarms can even give you advance warning of impending events. The package also includes an Appointment diary/calendar system along with a simple list making utility.



SRP £65.00

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ON A MISSION...

SOFT line

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TO SAVE YOUR MAC

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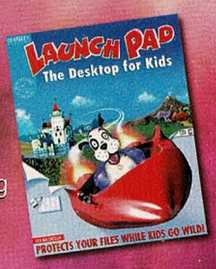


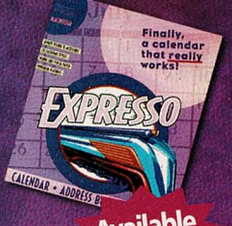
...YOUR SCREEN

After Dark 3.0 is the all new version of the worlds best selling screensaver. Now let Bad Dog trash your desktop, join in with the Karaoke Flying Toasters or play 'You Bet Your Head'. Additionally there's the **Complete After Dark Collection CD** which includes all the After Dark modules: After Dark 2.0, More After Dark and After Dark 3.0.

The Simpsons For Bart fans there's a Screen Saver with Fifteen hilarious, animated displays featuring Bart, Homer, Lisa, Marge, Maggie, Krusty the clown—and more! Marvel nuts will need **The X-Men Screen** Saver which brings Marvel Comics' mighty super-heros to your desktop. SRP £34.99ea, CD-ROM £49.99

...AND YOUR TIME.

Expresso Forgotten your wife/husband/sister/daughters birthday again? Missed that meeting again? You need Expresso the innovative new Calendar, Diary and Address Book. There are lots of computerised calendars but Expresso acts and looks different. For starters it's always available at the touch of a button. Using FlashBack you can make your calendar screen the actual desktop, just like a blotter or wallchart. There are 20 different looks of calendar so you can really personalise your day, including those sticky-notes that always seem to slide off your monitor in real life. Expresso features an address book, reminder scheduling, diary views, multi-user sharing and sharp looking printouts. It's ideal for anyone who wants to be organised, and that includes you too... SRP £49.99



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The Finder

MACFORMAT

Welcome again to MACFORMAT, Britain's best-selling Mac magazine! Whether you're an old hand or a novice, we'll bring you news, reviews of affordable and interesting new products, tips and techniques to help you get more out of your Mac, whatever you use it for!

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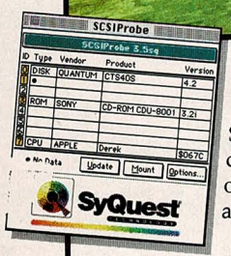
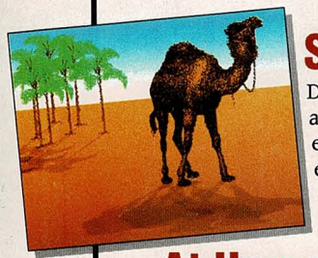
HOW TO DO IT



SCSI Troubleshooting 57
Suffering crashes or startup problems? The culprit could be SCSI, the system that links your Mac to other devices. We reveal all you need to know about how it works and how to *keep* it working



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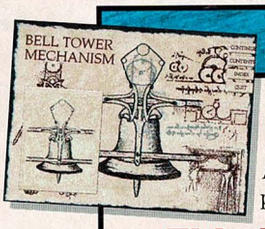

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Next Month 129
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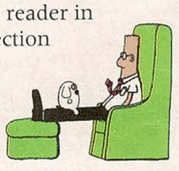

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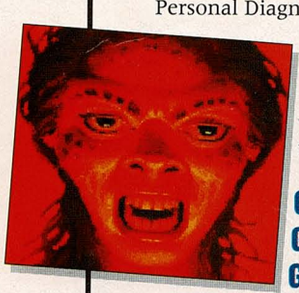

Games Reviews
OK, so you don't care what's coming next year. You want it *now*. Well, here are the very latest leisure software offerings:

Gabriel Knight 112
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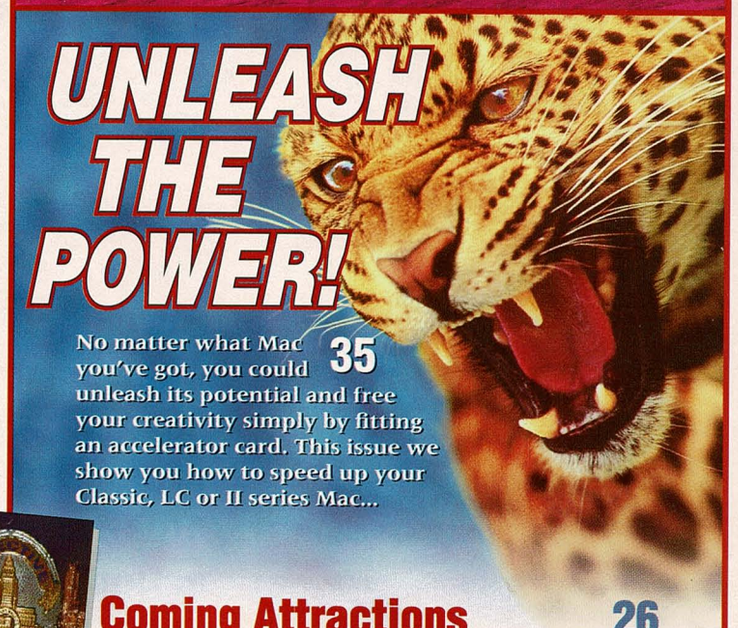

No matter what Mac you've got, you could unleash its potential and free your creativity simply by fitting an accelerator card. This issue we show you how to speed up your Classic, LC or II series Mac... 35

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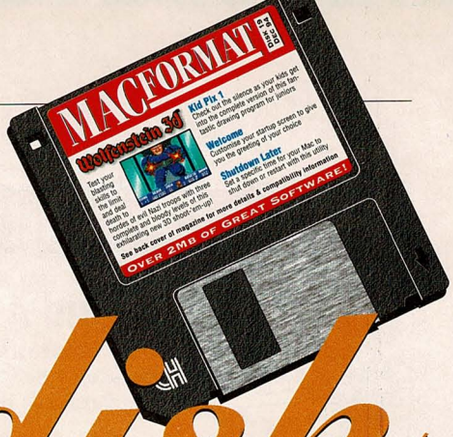
COVER DISKS

Your Cover Disk 6
Three complete levels of the hot new Nazi-blaster *Wolfenstein 3D* to try for yourself, a complete kids' drawing program, plus neat little utilities that enable you to customise your Mac's startup and shutdown

Your CD-ROM 8
Over 2,000 files! 600Mb, including all the goodies on the floppy disk edition *plus* your very own copy of the brand new *QuickTime 2.0*, a comprehensive games magazine complete with playable demos, heaps more demos of programs reviewed this issue, and much much more!

Your cover disk



START HERE

A high density floppy disk can contain about 1.4 megabytes of software, but we want to bring you as much as possible every month. Therefore, we use compression programs to reduce the files in size so we can fit more on – this month there's well over three megabytes worth. Unfortunately, this means you can't use the programs straight off the disk. You must install them on your hard disk first.

Doing this is very simple. Just double-click on the floppy disk icon, then double-click on the MACFORMAT 19 icon. A copyright message appears. Click Continue. A box then appears that asks you where you want to save the contents of the disk. Choose the place on your hard disk where you want everything stored and click Save. After a couple of minutes or so of frantic disk activity, the files will be stored on your hard disk.

Before installing the cover disk we recommend that you back up any important work on your hard disk. This sensible precaution will avoid problems should any software not be compatible with your setup. We make every effort to check our disks for compatibility and viruses, but the information here is intended as a guide only, and MACFORMAT cannot be held responsible for any damage to data, any inability to use this software or any consequential losses. So please, for your own sake, back up first.

Get out your asbestos gloves: this month Derek Smith hands you what must be the hottest game demo ever, *Wolfenstein 3D*! All adventure, all action, all fun and all absolutely free!

What a wonderful disk we have for you this month. There's a fantastic, fully playable demo, a complete top-notch educational program, and two marvellous utilities – and it's all free!

Shutdown Later

Utility
Requires: any Mac that shuts down

In these energy conscious days we all have to do our bit to save electricity. Here's a simple

GETTING YOUR BACK UP

Before you do anything else, you should make a backup of the MACFORMAT cover disk and work only with the backup – just in case anything does happen to go wrong. Make sure the original cover disk is write-protected (move the tab so that you can see through the hole). Then nothing can be written to the disk. After that, follow these simple steps:

1. Insert the MACFORMAT cover disk.
2. Drag the disk's icon over your hard disk's icon. The contents of the cover disk will then be copied into a new folder on your hard disk called 'MACFORMAT 19'. It's still not decompressed, however, so you can't yet run anything directly.
3. When the copying finishes, drag the cover disk icon into the Wastebasket to eject it.
4. Insert a blank high density disk. Check that it's not write-protected and if need be format it, naming it 'MACFORMAT 19 backup' (or 'Fred' if you want. It doesn't matter).
5. Drag the 'MACFORMAT 19' folder from your hard disk on to the new floppy disk's icon. When it has finished copying, your backup is complete.
6. You can now delete the 'MACFORMAT 19' folder from your hard disk by dragging it across to the Wastebasket, and selecting 'Empty Wastebasket' in the 'Special' menu.

WOLFENSTEIN 3D

3D action game. Requires: LCII or better, 2,300K of free RAM, System 6.0.7 or later.

On both CD-ROM and floppy disk

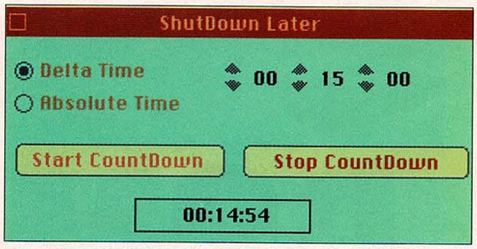
Wolfenstein was a huge seller on the PC and now this brilliant game has been improved and brought to the Mac. You play the character of a World War 2 gun-toting hero, battling against hordes of Nazis. All the action is viewed through your eyes, so you can see your hand and your gun, but not much else (I haven't found a mirror yet).

You can move around this world with the keyboard. On the numeric keypad, 4 and 6 rotate you left and right, while 5 and 8 move you backwards and forwards. To shoot, press

1 Press 8 on the keypad to walk to the first door, [space] to open it, then press [ctrl] to shoot the guard. You can pick up his ammo by walking over it.

2 Another room and a couple of baddies later, you come into a large chamber covered in very tasteful Nazi wallpaper. Try the door to your right first.

3 Apologies to animal lovers everywhere, but this cute little doggy will rip your throat out, so introduce him to your gun, then watch out for the trooper.

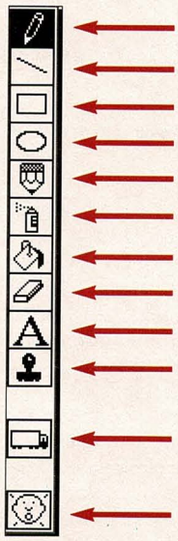


To initiate shutdown, get voice confirmation from the Chief Engineer and First Officer. (Think I'm watching too much TV.)

freeware program from Switzerland to help. If you have to leave your Mac completing a task but want it to close down when it's finished, *Shutdown Later* (as its name suggests) will handle that task for you.

You can set it up to close down at a specific time, say 12.30, or a relative time, maybe in 20 minutes. This can be particularly useful if you're connected to a network, because there will be occasions, such as when you go home, when you need to leave your machine on for a while so that other people can access it.

KID PIX EASEL



GOT A PROBLEM?

If the covermounted high density disk or CD-ROM you have is defective, return it to us and we will replace it. Please make sure you have followed the installation procedures described in these pages correctly, to ensure that there is a physical problem with the disk itself. Otherwise, the replacement will be just the same!

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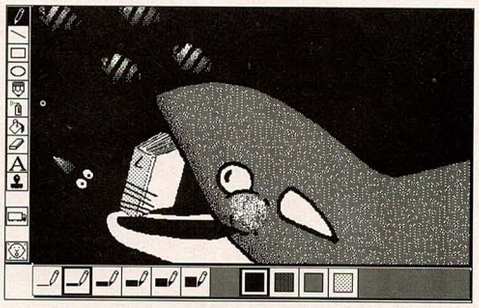
Enclose a self-addressed padded envelope (but we'll pay return postage) with the disk or CD, and a description of the fault. Please do not return disks or CDs to the editorial office; we don't hold stocks of them and can only refer you to the addresses above.



Kid Pix gives your children all the drawing tools they need. But when you're presented with a picture of a cow that looks like a tree, remember to be polite and smile.

Kid Pix

Children's drawing program
Requires: any Mac

Kid Pix has fast become a hugely popular Mac program because it's an easy, fun and enjoyable drawing program for children. Version 2 is currently available (for £39.99 from Softline, 081 401 1234), but this is version 1, which is why it's absolutely free. You'll be able to get the feel of the program, and enjoy its fun features – albeit in black and white rather than colour.

Now that you know what I get up to in my spare time, can you work out how I took this screenshot?

Welcome

Startup customizer
Requires: any Mac that starts up

Customising your Mac may not hold quite the same street cred as customising a '68 VW Beetle, but many of us still like to make our Macs personal. And I don't mean with little stick-on fluffy gonks.

On start up your Mac usually comes up with the message: 'Welcome to Macintosh.' This program enables you to substitute a greeting of your choice for this rather bland message.

Just open *Welcome*, type in your preferred text and hey presto, the next time you start up, you have your own custom greeting. Great for Monday mornings. All I want now is a program that enables me to change the shut down message to 'Have a nice day'.

[ctrl], and to move sideways, press [option] and the movement keys. And when things get scary, you can press [shift] and the movement keys to run away.

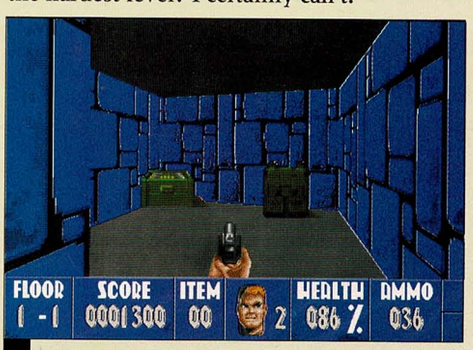
You can open doors by pressing the space bar. But beware, you never know what's on the other side. So get your finger ready on that fire key. Better to be paranoid and trigger happy than shot to bits.

There are also loads of secret doorways you have to find to collect all the treasure. By pressing the space bar again, you can push the wall directly in front of you to see if there is a secret passage hidden there.

Points are awarded for the speed at which you complete the level, the number of enemies you kill and the amount of treasure you find. There are four levels of difficulty. It's not too hard to succeed on the first two levels, but can anyone complete the game at the hardest level? I certainly can't.

4 In the next chamber there are some more puppies that need to be sedated. Oh look, there's some dog food. Eat it for a health bonus. Yeucch!

5 There's a boring pot in the corner. What's the point of that? Try walking up to the wall and pushing it by pressing [space] to see what happens.



6 Hooray! Lots of ammo with which to shoot lots of people. There are secret passageways throughout the level, one of which contains a machine gun.

Your CD-ROM

This month: a complete games mag on CD, the new *QuickTime 2.0*, great demos, plus shareware hot off the 'Net.

Despite several complaints that there's just too much on the CD (I kid you not), MACFORMAT is proud to bring you nearly 600Mb of the best software known to mankind. Let's have a look at the folders on the CD...

- **Highlights:** this folder contains aliases of folders elsewhere on the CD and is an easy way to get started on this month's best programs.
- **Floppy:** contains the software that appears on the floppy disk minus *Wolfenstein*, a larger version of which appears in the IMG folder.
- **Demos:** this folder contains demos of programs featured in MACFORMAT.
- **Shareware City:** the latest and greatest shareware from the Internet.
- **Shareware in MACFORMAT:** this folder contains all the software reviewed in MACFORMAT this month (and the odd extra one). See page 103 for the start of our shareware round up.
- **IMG Oct/94:** this folder contains the latest issue of American electronic magazine *Inside Mac Games*, dedicated to the best in Mac entertainment with reviews and previews galore.
- **Reader's Corner:** your chance to be famous for 15 megabytes. This section contains your contributions.

So let's take a look at some of the wonderful goodies on this month's CD in more detail...

Inside Mac Games

Magazine
Requires: colour monitor

Inside Mac Games, a games magazine devoted entirely to the Macintosh, has been published on floppy disk since the start of last year. The magazine has now expanded on to CD. Although the heart of *IMG* is text-based, by clicking on buttons contained in the magazine you can play demos of hot releases and view slide-shows of soon-to-be-released games.

There's also some smashing *QuickTime* movies, and to make these run faster we've arranged with Apple to include *QuickTime 2.0* on this month's CD.

This folder also contains a section called More Goodies, which contains updaters, past issues, game walk-throughs and cheats.

Note: the slide-shows don't automatically open from the magazine thanks to a technical problem with CDs. But don't worry because it's dead easy to get them to work manually, and you can find all the instructions in this folder anyway. Enjoy the ride!

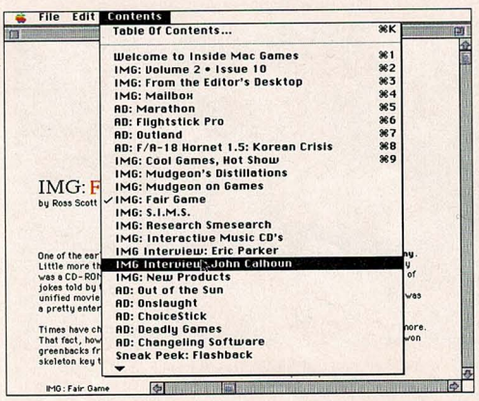
Links Pro demo

Golf simulation
Requires: LC or better, System 6.0.7 or later, 4Mb of RAM, and a 13-inch monitor

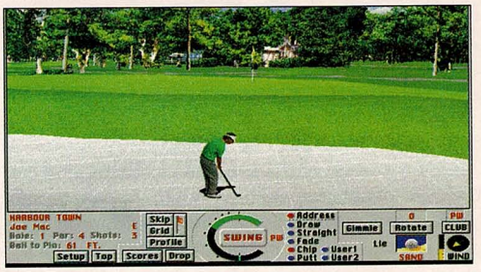
Fancy a quick swing? Try this demo of *Links Pro* – you get one of the holes at Harbour Town Golf Links to play. We reviewed this game in MACFORMAT 18 and gave it a great 88%.

You'll need someone to play with, so select them in the 'Available Golfers' list and click on the Add button. Click OK after you've added all the partners and click OK on the next screen. On with the garish trousers, stick a glove on your left hand (or is it right?) and off to the tee.

To strike the ball, first move the pointer over the Swing symbol and click and hold down the mouse button to start the backswing. Then release the mouse button when the yellow indicator reaches the top to set how hard you want to swing. (If you release the mouse button past the 12 o'clock line you hit the ball with more power, but you have less control.) Then click the button again when the yellow indicator reaches the bottom (6 o'clock). If you click too soon, the shot will hook left; too late and it will slice right. Fore!



You can access all of *Inside Mac Games* from the Contents menu. Not an exciting interface, but it's quick and simple.



Right. Now I understand that I have to get the little white ball into the little hole, but what exactly is the point?

Out of the Sun demo

Flight simulator
Requires: 13-inch colour monitor, 4Mb of free RAM

Sample Domark's sequel to the excellent *Flying Nightmares* in this fully playable demo. Once the game has loaded, click on Quick Start, then choose from the options where you want to fly, in which plane, and against which enemies.

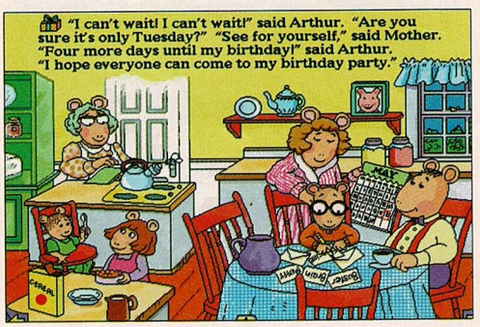
The controls are rather complicated, but they're all listed in the accompanying ReadMe file. The basics are: press 0 (zero) to rev your engine to maximum, and use the arrow keys to drive (I'm a trained pilot, you know).

Then it's off into the clear blue sky to fly free as a bird and shoot a lot of people who never did you any harm. War is hell! (So is the lack of it, mind you – just ask President Clinton.)

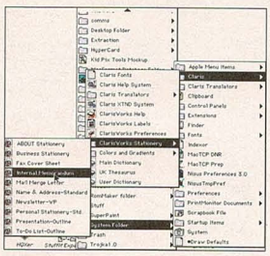
Living Books demos

Children's Stories
Requires: 13-inch screen, 2.5Mb of RAM, and a spare child

The *Living Books* series from Brøderbund is famous for its highly colourful and entertaining way of teaching children to read. The programs


"I can't wait! I can't wait!" said Arthur. "Are you sure it's only Tuesday?" "See for yourself," said Mother. "Four more days until my birthday!" said Arthur. "I hope everyone can come to my birthday party."

After you have listened to the story being told, you can click on various parts of the picture to see some surprises!



One of the best bits of *Now Utilities* is *Now FolderMenus*, which enables you to improve your navigation. (I'll send a copy to Mark Thatcher.)

are full of fun and humour and will appeal to parents as well. On the CD you will find demos of seven of the Living Books to try for yourself.

Now Utilities 5.0

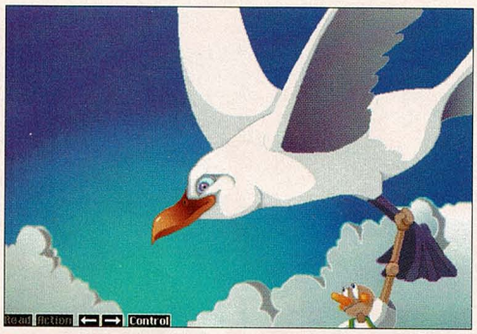
Utility package
Requires: System 7.0 or later

You'll love this. Turn to page 120 for details of this program, then try it out! This is *the complete program*, free to try for a week. To install it, just double-click on *Now Installer*. The program will delete itself when your trial period is up.

New Media Schoolhouse

Children's programs
Requires: 13-inch colour monitor

On page 76 this month we review two products from New Media Schoolhouse, *Magic Castle* and *Pinocchio*. You'll find demos for both of these, plus five other children's titles from the same people, on this month's CD. To test these programs fully you'll need the assistance of a child, so if you don't have one, rush out and borrow one from somewhere.



Fly with Pinocchio, discover science, visit Mole and Rat at the riverbank and generally have fun with these kids' demos.

Reader's Corner

Your programs
Requires: see individual ReadMe files

Contributions keep pouring in, and this month we have some great stuff from our readers. All the way from Australia we have *Financial Companion*, a lovely program that can work out how much debt you're in. And from nearer to home in Hampshire, Matthew Maber has sent us some of his fonts and other goodies.

John Singer, one of our American readers, has sent us some of his own fonts, and jolly good they are too. And Andrew McConn sent us *Strike-O-Lator*, which is, erm, odd. Have a look and you'll see what I mean.

Then there's *Vector Graph*, which draws, erm, something which looks very educational and scientific. *WordScramble* was sent to us by Alan Trautman. It's ideal for – yep, you guessed it – scrambling words.

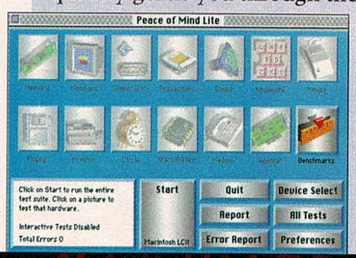
Thanks to everyone else who sent stuff in. Keep it coming! If you have anything to say, send it in *TeachText* format and we'll add it on to the CD. *Derek Smith*

Marcus Bointin has sent in some very high quality pictures, including this one and the picture inside the CD case.

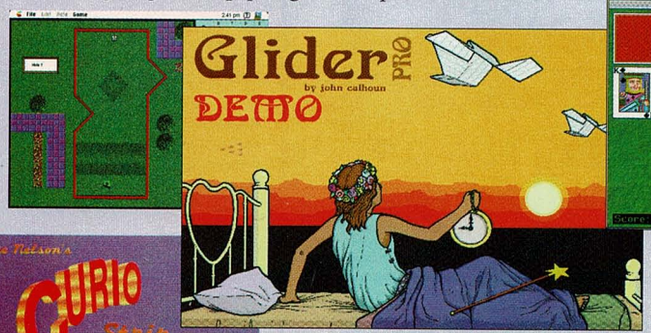
Over 2,000 files 600Mb

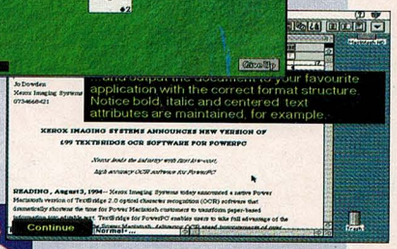
FAR TOO MANY TO MENTION!

This month's CD is jam-packed with so much gorgeous software that we can't possibly cover it all in these few pages, so let me quickly guide you through the best of the rest. This is going to keep you glued to your screen...



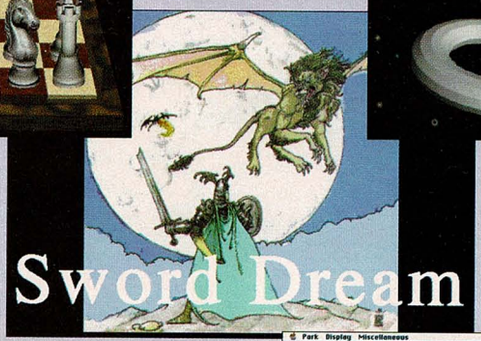
Peace of Mind is a diagnostic kit to sort your Mac out. Try the demo and see if it scares your Mac into behaving itself.



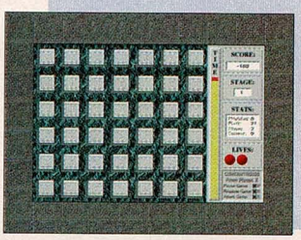


Fancy a quick game of chess? Then check out *Avatar*. Let's see – if I move my horsey in front of the castle...

If you want your optical characters recognised, then *TextBridge* is for you. View it on the CD – and read all about it starting on page 52.



Woodstock on CD may seem a bizarre concept, but these days nothing is sacred.



Build your own fun fair in *Theme Park*. Place food stalls at strategic locations, like next to the violent roller coaster.

Voyage through the solar system with *RedShift* and discover which planet has a thick chocolate coating.

Or learn about the rings of Saturn and Jupiter

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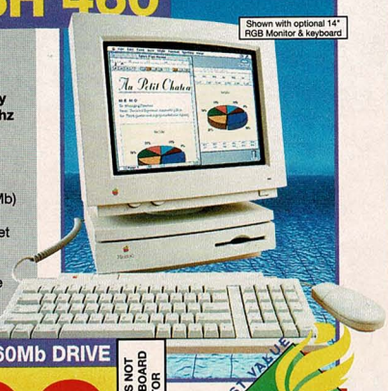

The superb Macintosh 460 features a zippy Motorola 68030 processor running at 33Mhz which makes it the machine of choice for general business, education and home entertainment tasks.

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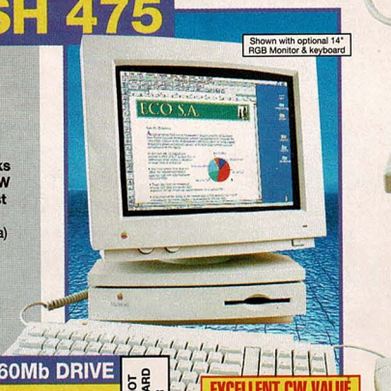

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4. (6)	ZORK - INFOCOM	£44
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6. (9)	PIRATES - MICRO PROSE	£24
7. (4)	MYST - ELECTRONIC ARTS	£42
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10. (7)	RUFFS BONE - LIVING BOOKS	£37

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CW PRODUCT CHECKLIST
- 66/33Mhz 68LC040
- 3 Expansion ports
- Optional TV tuner
- Upgrade to Power PC
- LC PDS Expansion
- Built-in CD-ROM
- Support to 15" Mon.
- Infra-Red rem. control

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CW RECOMMENDED

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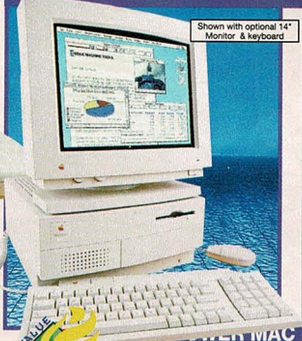

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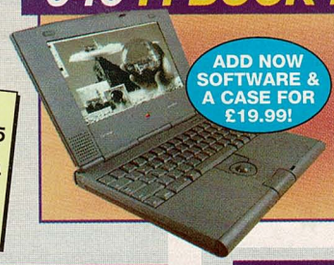

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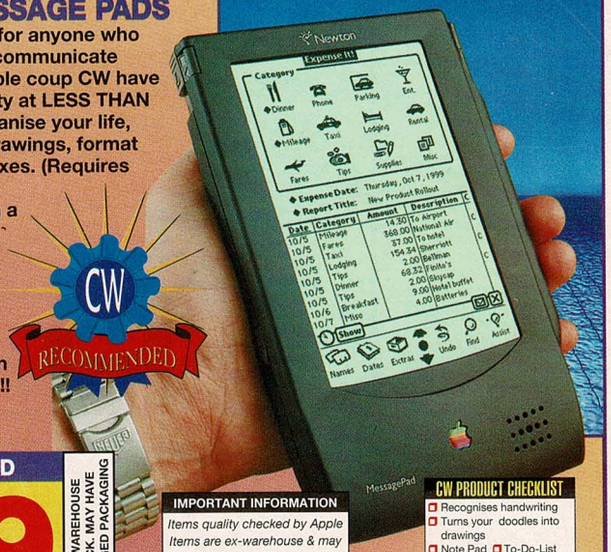

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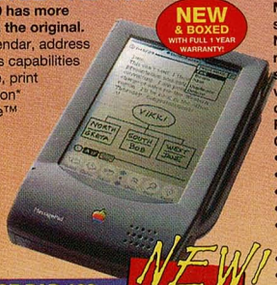

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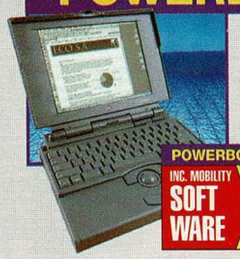

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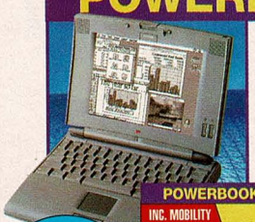

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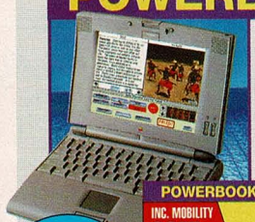

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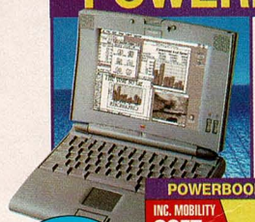

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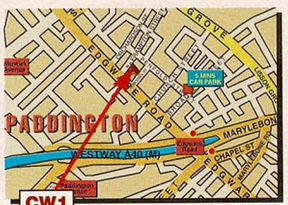

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APPLE PERSONAL L/WRITER 320
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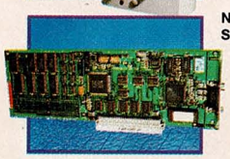

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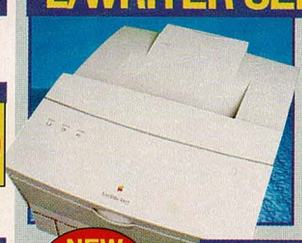

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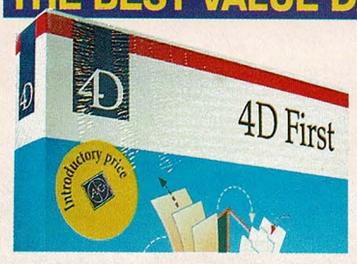

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Apple opens the door to Mac clones

You'll soon have the chance to buy Macs made by other companies as Apple clears the way for a competitive market. MACFORMAT gets the details...

As part of Apple's on-going plans to make the Mac more popular than ever, other companies are to be given the right to manufacture Macintosh computers. Apple is talking to businesses across the world, offering them the rights to produce computers capable of running Mac programs – in other words, Mac clones.

Why is Apple doing this now? Well, the move is part of its long-term strategy to encourage more people to use the world's best personal computer system. With more companies making and advertising Macs, there will be more models to choose from, raising the Mac's profile on the PC-dominated high street. Apple will then have more opportunities to demonstrate to potential buyers the ease of use of its operating system and software, as compared to the *Windows* or OS/2 systems.

Any company with a licence will pay Apple an agreed fee for each machine it produces. In return it will get the right to use the PowerPC 601 chip and other essential Macintosh components, as well as System 7.5 and Mac fonts. Most of the clones are likely to be PowerMacs, but a range of traditional Macs may be introduced as more businesses come on board.

Mac clones should appear by this time next year. While the identities of the first companies to produce non-Apple Macs haven't been revealed yet, it's thought that some six firms will initially receive the prized licences. The firms involved will be those who have something innovative to add the Mac blend, or who are successful in parts of the world that Apple has yet to explore. This means it's likely to be a while before Mac clones go on sale in the UK. Apple is also keen to find a firm capable of boosting the Mac's profile in the competitive American market.

The Mac has changed a lot over the years, but the biggest shifts are still to come.

The Mac gets a makeover

The new face of Apple. This logo will soon adorn all manner of Mac hardware and software.

As part of its plan to spread the Mac word wider, Apple is introducing a new logo for its operating system. The Mac OS face will soon be appearing on everything from printer and hard drive packaging to books and advertising blurb. This means that you will be able to buy anything that carries the operating system logo – from a program to a printer – secure in the knowledge that it will be compatible with your Macintosh. As other companies begin to manufacture Macintoshes, the logo will help to make identification of Macintosh-compatible hardware and software clearer, making life easier for the less experienced Macintosh users in particular.

Eventually, as more updated versions of System 7 are distributed, the new face of the Macintosh will appear on-screen each time you switch on your machine.

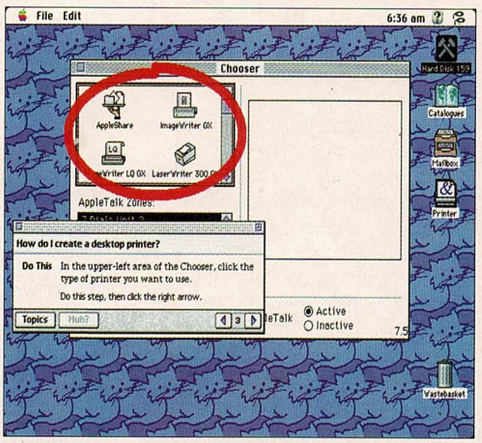
System 7.5 hits the stands

Despite the plans for a revamped logo, for the time being the Mac operating system will still be known as System 7, and the latest version, 7.5, is now available. Priced at £105.75, System 7.5 is the most powerful and memory-hungry Apple operating system yet. This means your Mac will need 4Mb of RAM just to run the necessary essentials.

A major addition to the System 7 repertoire is QuickDraw GX, a flexible new system for printing and font management. The most visible part of GX is the printer icon situated on the Desktop. This enables you to print a document without having to load a program first – you simply drag the document icon on to the printer icon. Unfortunately, though, your Macintosh will need 8Mb of RAM to be able to run it.

The improved video system *QuickTime 2.0* is a late addition to a range of new features that also includes the *AppleGuide* tutorial program, the *AppleScript* program (which enables your Mac to do routine, repetitive tasks automatically), and *PC Exchange* (the utility that enables you to use PC-formatted disks), and a whole new range of Desktop designs.

By now, you should be able to choose between floppy disk and CD-ROM versions. The CD-ROM comes with extra software including utilities for QuickDraw GX, plus demos and *QuickTime* movies. System 7.5 should be compatible with all current Mac applications. For more details contact Apple on 0800 127753.



System 7.5 comes with a host of useful new features, including an improved help system, AppleGuide. You need 4Mb of RAM just to run the bare essentials, though.

Performas offer software galore

Tonnes of programs are being included with each new Performa, as Apple continues to entice new home users into Mac ownership. Each of the four Performa Plus bundles, as they are known, is aimed at people with different interests and budgets.

Top of the range is the Performa 630 TV Plus, which sells for a competitive £1,699 and is aimed at anybody who wants to wholeheartedly join the multimedia revolution. Like the entire Plus range, it comes with the top-selling integrated package *ClarisWorks 2.1* (which includes word processing, graphics and spreadsheet modules), *Mavis Beacon Teaches Typing, ClickArt Performa, MacGallery ClipArt Treasure Pack* and the excellent shoot-'em-up *Spectre Supreme*.

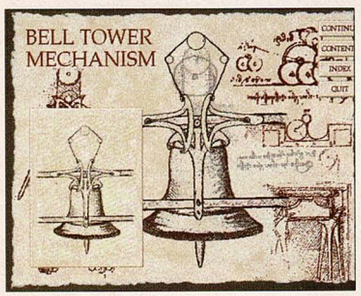
The 630 TV Plus also includes the video editing program *AVID Videoshop* and a strong selection of CD-ROM titles: *Grolier Multimedia Encyclopedia, The Guinness Disc of Records, Microsoft Dinosaurs, Leonardo the Inventor, San Diego Zoo Presents The Animals, Rosetta Stone* and last, but certainly not least, *The Tale of Benjamin Bunny*.

A double-speed CD-ROM drive, a video card that enables the 630 to receive television pictures or connect up to a video recorder, and an infra-red remote control complete this impressive package.

If you only need CD-ROM facilities rather than a complete multimedia authoring kit, you can buy the 630 Plus for £1,499. The only differences between the two is that the 630 Plus lacks the video facilities, like *Videoshop*, and the TV card and remote control of the top-end package. Like the TV Plus, however, it does have a double-speed CD-ROM drive built in.

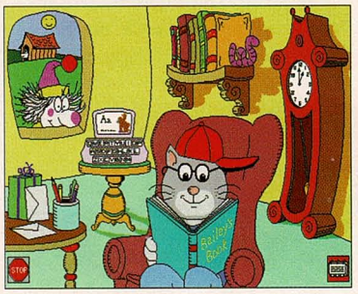
The £999 Performa 475 Plus is intended for home desktop publishing and other business uses. As well as the standard software pack, it comes with *HomePublisher*, *TouchBase Pro* and *DateBook Pro*.

Finally, the 460 Plus, a faster version of the Performa 450, sells for £899 and is aimed at newcomers to computing, or families with small children. It comes with the basic software pack plus the education packages *Millie's Mathhouse, Bailey's Bookhouse* and *Thinkin' Things*. For more details contact Apple on 0800 127753.



The Performa 630 Plus comes with *Leonardo the Inventor* and bags of other fine CD-ROMs.

For DTP enthusiasts, the Performa 475 Plus includes *HomePublisher* among its bounty.



For kids, the 460 Plus comes with educational packages like *Bailey's Bookhouse*.

Multimedia shines at Live '94

Macs and CD-ROMs were prominent at the recent Live '94 show, which was attended by more than 180,000 people. Live '94 covers all areas of electronic gadgetry, including hi-fi, TVs and game consoles, but Apple's stand more than held its own in the crush.

The biggest part of the stand was devoted to the Performa. Mark Floisand, Apple's Consumer and Marketing Manager, was at the show and was encouraged by the response from the public. 'People were amazed that the Mac could do multimedia that easily, and they could see real uses for it. We had people saying, "I could see my kid putting together a school project [with that] because I can put my camcorder into the computer."'

Multimedia played a strong role in the Live '94 blend, with companies like Microsoft and MDI using stands to show off their current releases. Meanwhile, many large companies you wouldn't usually associate with the world of computing have made the move into electronic publishing – phone company Mercury announced a link-up with software firm M33, while News International, Rupert Murdoch's giant multi-national publishing firm, is busy developing CD-ROM publishing plans.

Apple's Live '94 stand played host to many packed presentations during each day of the show.

Apple Bytes

Mac line is trimmed

Apple has just announced that it's abandoning its LC brand, which should make decisions concerning which desktop Mac you should buy far simpler in the future. The range now consists of three Performas – the 460, the 475 and the 630 – and three PowerMacs – the 6100, the 7100 and the 8100.

The LC and Performa Macs have been essentially the same machines for some time, the only difference being that while the LC was aimed at business users the Performa was targeted at the home users. With the distinctions between different types of users blurring, though, the two brands were confusing more people than they were helping. The choice is far easier now: you can either opt for the Performa Plus range with extra software, or the slightly cheaper Performas, with no extra trimmings. Dealers will be free to devise their own business packages, based around the basic Performa machines – such as choice of monitors or extra software. If you want more details on the slimline Mac range you can contact Apple on 0800 127753.

Software sales rise

More Mac programs are being bought in Europe, according to figures released by the Software Publishers Association. $28.4 million was spent on Mac software during April, May and June, an increase of 9% on the figure for the previous quarter. The total for the first six months was $59.5 million, with the UK accounting for $14.8 million of that figure. What's more, falling prices mean the actual number of programs being sold has increased. The results are based on numbers supplied by 38 leading software publishers, including Claris, WordPerfect and Microsoft.

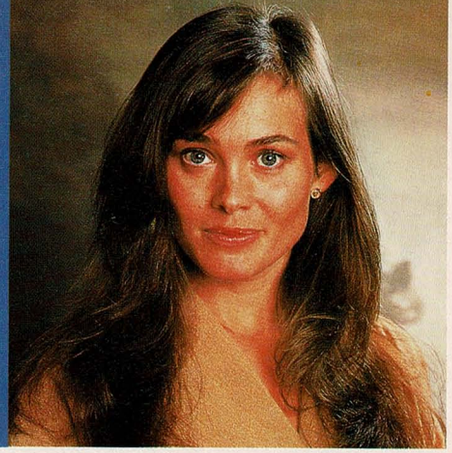
New speedy CD drive

The steadily growing line-up of high speed CD-ROM drives has seen another addition in the form of the Toshiba XM3501B. This is an internal drive capable of playing CD-ROMs at up to four times the speed of the original industry standard. Toshiba also claims it's quicker at accessing the correct point on a disc than any existing model. It costs £582, and is distributed by Ideal (tel: 081 390 1211).

PowerMacs revamped

The PowerMac range is dropping in price, and some models are being equipped with larger hard drives. The starter model, the 6100/60, has had its 160Mb drive boosted up to 250Mb and its price cut by £40 to £1,525. The cheapest 8100/80 doubles its drive capacity to 500Mb, but holds its price of £3,870. The added disk space will keep the PowerMac competitive until the new machines appear in the next few months. If you want more details, you can contact Apple on 0800 127753.

ClarisWorks for me



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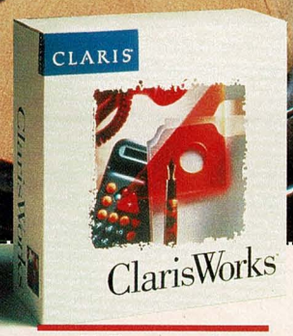

NEW!

FREE DEMO-DISK

Please complete and send this coupon to:
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Yes, I want to know more about ClarisWorks 3.0. Please send me more information and my free demonstration disk.

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MF 12/94

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** Incl VAT and shipping

Adobe revamps its utility kits

With *Acrobat 2.0* you can view a file that was created by someone else, even if you don't own the software that was used.

New versions of the popular programs *Adobe Type Manager* and *Adobe Acrobat* are about to be released. The £58.75 *ATM*, which is now up to version 3.8, enables your Mac to employ sophisticated typefaces, such as PostScript Type 1 fonts, even if your printer wasn't designed to use them. It also gives crisp screen displays of the fonts. New additions to this release include extra fonts, taking the total up to 30, and support for QuickDraw GX. *ATM* now also runs native on the PowerMac.

Meanwhile, the *Acrobat* suite of programs receives an upgrade to the £188 version 2.0. The core of this program enables you to save documents – text, graphics or desktop publishing layouts – in a Portable Document Format (PDF) that can be read or printed by any computer setup. The receiving computer needs only to have *Acrobat Reader*, which you can get free. It doesn't matter if the receiving computer doesn't have the same programs or fonts as you – the PDF contains all the information it needs to display the document.

The new version includes enhancements such as a search function that enables you to find any text in a PDF file. You can also link together two PDF files so they become cross-referenced, or link a file to another program.

The higher power *Acrobat Pro*, selling at £570, enables you to make PDF files from PostScript files. This should prove a great boon to commercial publishers. If you want more details you can contact Adobe on 081 547 1900.

Haunted House leads home line-up

A new selection of CD-ROMs is due from Microsoft in the run up to Christmas. Due out this month is *Ultimate Haunted House*, a children's exploration package created by Gahan Wilson, a respected book illustrator. Two £40 CD-ROMs based on the *Magic Schoolbus* books, for children between six and ten years old, are also due this month. In *The Magic Schoolbus Explores The Human Body* you get to explore the body from the inside, with a bus full of children for company. You enter via the mouth and travel down the throat! At the other extreme (not that one!), the second title travels across the expanse of space in *The Magic Schoolbus Explores The Solar System*.

Dangerous Creatures is a natural history encyclopedia of terrifying alligators, deadly spiders and other animals that you might not want to get too close to. This CD-ROM is £45, as is *Ancient Lands*, which takes you back in time to discover early civilisations.

Microsoft is also preparing a 1995 edition of its flagship home encyclopedia *Encarta*. With a team of 25 now working on it full-time, the new version is said to feature more video clips and pictures than ever before. For more details contact Microsoft on 0734 270001.

Gahan Wilson's spooky cartoons appear on CD-ROM for the first time in *Ultimate Haunted House*.

New system heralds a revolution

New software from the American company Taligent could radically change the way Mac and other computer owners use their machines. *TalÆ* – the Taligent Application Environment – is part program, part operating system. Taligent ambitiously believes *TalÆ* can become the most popular software system in computing, and will change the way computer users work with each other.

TalÆ uses a flexible combination of small programs, or frameworks, to enable itself to work with any operating system with no noticeable difference for the user, whatever make of computer he or she is using. What you see is not the familiar Mac interface, but rather a completely different style of interface called People, Places and Things.

Apple is just one of the partners that own a share of the Taligent company, along with IBM and Hewlett Packard. The renamed, new-look Mac operating system (see our news report on page 15) will be one of the operating systems with which *TalÆ* will be compatible.

Each framework within *TalÆ* is responsible for handling a different task, such as text-editing, 3D graphics or running a printer. Programmers writing software to work with *TalÆ* won't have to worry about how to write the basic elements of a graphics program, for example, because a framework to do that job will already exist. Similarly, you'll be able to copy a document created by one *TalÆ* program to use with any other *TalÆ* program, because both will be using the same frameworks to edit text or print the document.

Can one piece of software change the way you use your Mac forever? Taligent, part-owned by Apple, certainly believes so.

The first version of *TalÆ* should be available for the Mac next year. An added bonus is that the *TalÆ* frameworks are generally tiny, taking up little space in your Mac's memory or on your hard disk. Taligent believes this needn't be another of those revolutions you can join only if you buy yet another bigger, fatter computer. Time alone will tell how well Taligent can put its exciting ideas into practice – we will keep you posted on any developments.

Free advice.
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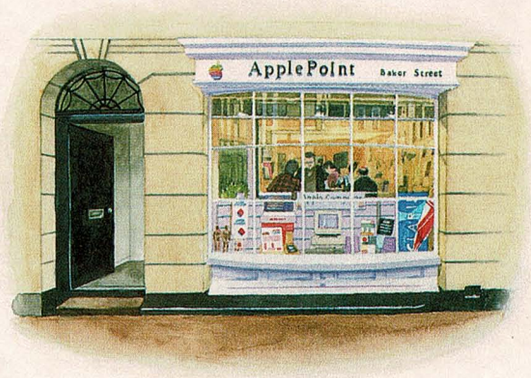

When you take the time to chat to customers . . . first time buyers or experienced Mac users . . . about computers, software, applications, compatibility, you can't possibly compete on price. Right?

Wrong.

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Apple goes global at Expo '94

Communication was the key word at October's Apple Expo, with news of a new on-line service that promises to make comms easier to use.

The Grand Hall at Olympia, scene of last month's Apple Expo, was filled with stands that looked as high-tech as the products they played host to, as an expected 40,000 people came to see what was new on the Mac.

Centre stage was Apple's own stand, which was promoting the PowerMac and System 7.5, the newest version of the Mac operating system. Also there, making its UK debut, was eWorld, Apple's latest on-line service. This enables you to use icons and illustrated screens to negotiate its electronic mail (e-Mail) facilities, so you don't have to learn and type in complex lists of commands.

A free eWorld kit which includes the software you need to connect your Mac and modem to the service is available. Just contact Apple on 0800 896206.

The cost of communicating

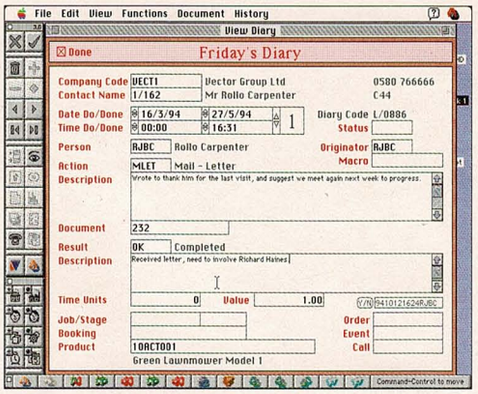
Charges for using eWorld are made in US dollars and are converted into pounds on your credit card bill, as we mentioned in our story in MACFORMAT 16. After the first month, which is free, there is a monthly subscription fee of $8.95 (roughly £6 at current exchange rates). Then, while you are connected, you will be charged at $7.95 (£5.30) per hour for your first two hours each month, and $12.90 (£8.60) per hour for further usage. Connection costs are charged in units of a minute each.

What you get for your money is access to an ever-growing group of services, including electronic newspapers and magazines, news of new Mac releases and access to conferences, where you can converse with up to 200 other eWorld users. More British-orientated material is being worked on.

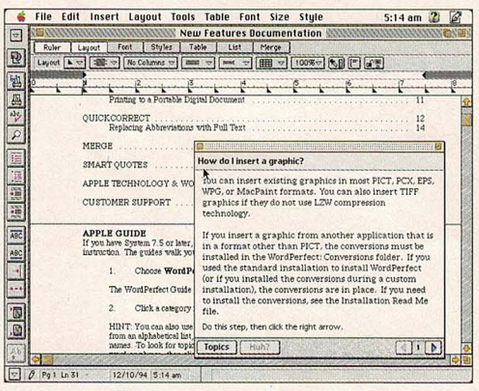
Apple claims that, in time, the flat fees charged for access to all areas of eWorld will be replaced by a layered price structure. You'll then pay different amounts depending on which service you want to use. As yet, no date for the changeover has been announced, so it's unlikely to be imminent.

Admission to the Internet, which covers the wider world of e-Mail, will come much sooner. An Internet gateway is expected to open very early in 1995, and it will be available to eWorld users at no extra charge.

Further direct links between Apple and its customers were forged with the launch of AppleWorld, a club which offers news of the latest Mac developments and exclusive discounts on Mac products through a bi-monthly magazine – called, imaginatively, *AppleWorld*. Issue one, which was given away to everyone who attended Expo '94, included a buyer's guide and a discussion of operating system developments. Future issues will only be available by direct subscription, costing £36.85 per year. The magazine will be complemented by a special AppleWorld service on eWorld. To find out more contact Apple on 0800 127753.



Modulus is a sophisticated accounting program that, as its name suggests, takes a modular approach. Stages range from the £288 starter package *Modulus Silver* to the £2,932 *Modulus Gold*, which includes all modules and training. You can add individual modules to *Silver* to build up the program as your business grows. For more details contact Vector Software on 081 224 8080.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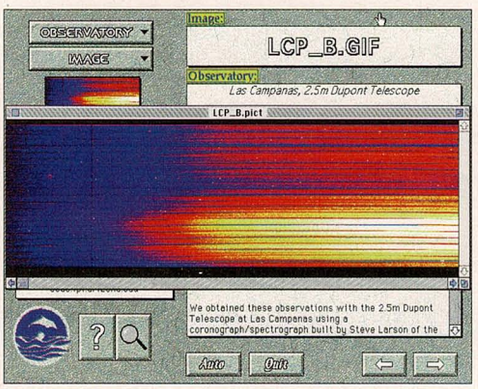
New Features Documentation
How do I insert a graphic?
You can insert existing graphics in most PICT, PCX, EPS, WPG, or MacPaint formats. You can also insert TIFF graphics if they do not use LZW compression technology.
If you insert a graphic from another application that is in a format other than PICT, the conversions must be installed in the WordPerfect Conversions folder. If you used the standard installation to install WordPerfect (or if you installed the conversions during a custom installation), the conversions are in place. If you need to install the conversions, see the Installation Read Me file.
Do this step, then click the right arrow.
Topics
Huh?

On show at the Novell stand was *WordPerfect 3.1*, an early upgrade of version 3.0. The new version, which is due to be released later this month, includes features that work with additions to the newly released System 7.5, like QuickDraw GX. There was no price available at the time of going to press, but expect it to be around the current £330 price mark. For more details contact Novell on 0344 724000.



Jupiter Impact was one of the many multimedia CD-ROMs you could try for yourself at the show. The photographs from the recent meteorite crashes on the planet's surface have been compiled on to a CD-ROM in double-quick time, showing the potential of the medium in offering up-to-date current affairs. For more details on this £35.25 offering, contact Softline on 081 401 1234.

Make a date

As you might expect, Claris was also there flaunting its wares, including *ClarisDraw 1.0* (which received a whopping 88% last issue) and *ClarisWorks 3.0*, which goes on sale this month for £152. The company also took the opportunity to announce a new limited offer – from now until the end of January anyone buying, or upgrading to, *ClaisWorks 3.0* will receive a copy of Claris *Organiser 1.0* (which is also available separately for £57.57). This is a complete package that brings together your appointments diary, calendar and address book, enabling you to keep pace with the things you have to do and people you need to meet.

The extra to *Works* is being offered because of the favourable response Claris has received to a similar promotion in the United States – which brings us to a slight hitch. Your free version of *Organiser* is, in

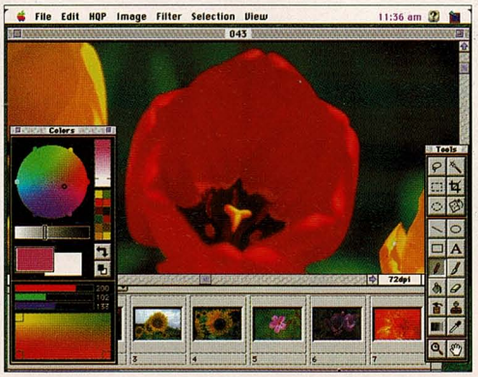
Graphics programs draw the crowds

Among the many live presentations given over the four days of the show were demonstrations of some truly spectacular new graphics software.

Leading the way was *Live Picture*, an astonishing and expensive image processor from HSC Software. Priced at a cool £4,112, it's clearly aimed at top-class professional users with big demands and equally big budgets. Its main advantages over the competition are superb quality printouts and awesomely powerful graphics tools.

Show visitors were treated to an impressive demonstration of how easily pictures can be manipulated in complex ways, with little or no time lag. This manipulation included smear and distort effects that can be brushed on to create eye-catching effects. *Live Picture* is also resolution independent. This means you can zoom in on any part of an image until you can see the individual pixels (as with conventional programs), and then make finely detailed alterations. *Live Picture* is distributed by Principal, who can be contacted on 0706 832000.

The nose in this image was widened in seconds using *Live Picture* and a single distortion brush.



Among *PhotoFix's* features is a catalogue browser, which enables you to do some comparing and contrasting to quickly see which image is best suited to a particular design.

PhotoFix is the new name for *ColorStation Pro*, the senior relation of the program MACFORMAT featured on issue 16's cover disk. It's £234, and you could crudely describe it as a mini-*Photoshop*. With it, you can import images from a scanner or load them from a disk, then edit and retouch them.

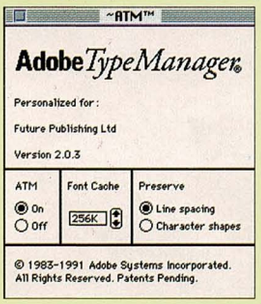
The program also features an image browser, which displays its range of artwork in the form of thumbnail-size selections. *PhotoFix* also includes programming routines to improve your printing. For more details you can contact Linographic on 0252 376103.

TYPE CATCHES UP WITH THE TIMES

Following its official launch of the latest version of *Adobe Type Manager* (see our news story on page 18), Adobe announced that it was adjusting the way in which it sells its typefaces.

If you bought an Adobe typeface in the past, you were licensed to use it with any one printer – and you could connect any number of Macs to that printer and use the typeface legally. From now on, though, Adobe will be pricing each typeface in accordance with the number of *computers* using it. However, the new licence conditions do allow you to use the typeface on up to five Macs, so small companies and lone users shouldn't be affected by the change. Site licences for larger companies are also available.

As Sue Thexton, Adobe's Marketing Director for Northern Europe, explained, the reason Adobe previously licensed typefaces per printer was because you were only using their faces during printing, not during screen work. You see, initially there were two components you could get in a typeface: a bitmap font and an outline font. The bitmap font was for working on the screen, while the outline font governed the printer's output. So, as Thexton points out, 'It was only when you went to the printer and accessed the outline font that you were using [Adobe] software.'



Adobe has changed the way it licenses its typefaces to keep pace with current developments in technlogy and market demand. You're now charged by computer numbers, not printer numbers.

However, the increased use of *ATM* means that printer fonts can now be reproduced sufficiently well on screen, meaning there's no need for the bitmap font. So for the price of one licence, an entire network of computers can use the same typeface.

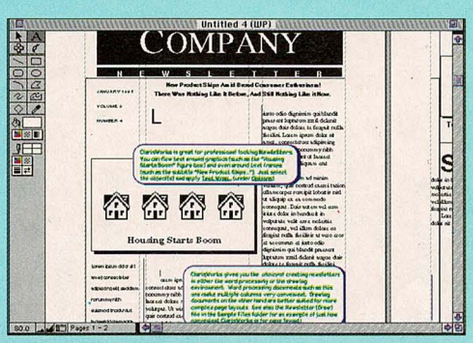
The new licence policy is in response to this change in technology, but Thexton stresses that Adobe has tried to ensure no type buyer loses out as a result. 'You can't say that x computers are connected to x printers – it varies from company to company. We felt that five was a reasonable figure, based on the research we did.

'What we've done is change the way in which we license the typefaces [so that they are] in line with what the market says it wants.'

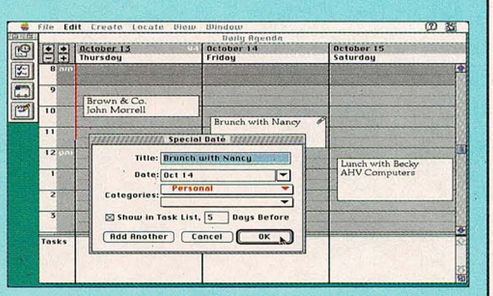
The new licences will appear in every package of typeface disks sold by Adobe from now on. For more details contact the company on 081 606 4000.

with ClarisWorks 3.0

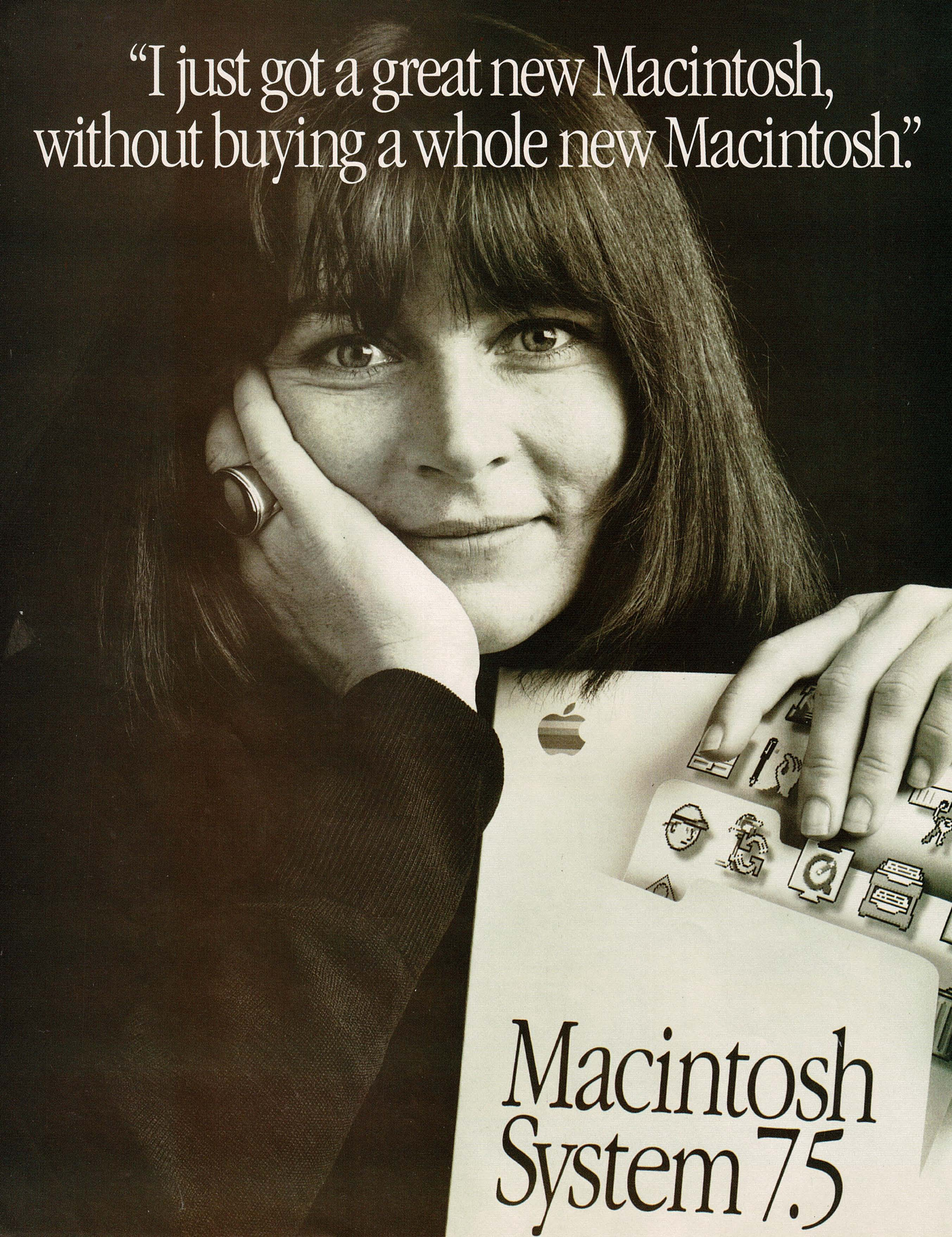
fact, the American edition, which means you have to suffer references to 'zips' and 'states'. The more serious threat of date confusion has been avoided, however, so you can still enter your dates in the British way – that is 6/11/94 for 6 November, as opposed to the American form of 11/6/94. If you really can't cope with the American package you can exchange it for a full British version after you've bought *Works 3.0*, providing you pay £10 postage and packing. For more details call Claris on 081 756 0101.



For the next three months the latest version of *ClarisWorks* comes with a little something extra.



With *Claris Organiser*, you can make sure you don't forget when you're doing what, and who you're doing what with.


"I just got a great new Macintosh,
without buying a whole new Macintosh."
Macintosh
System 7.5

One of the greatest benefits of owning a Macintosh™ is how easy it is to take advantage of new breakthroughs in Apple technology without compromising on the investments you have already made.

Take the new Macintosh System 7.5, for example. It adds many powerful new capabilities to your Macintosh. System 7.5 streamlines, simplifies and improves many of the things that made your Macintosh so desirable in the first place.

Yet you can install System 7.5 with just a few mouse clicks. And best of all, it costs only £90.00 (ex VAT).* It's like getting a great new Macintosh without paying for one.

A new level of compatibility.

System 7.5 makes it much easier to work with people who use other PCs. So with your Macintosh you can fit-in yet truly stand-out.

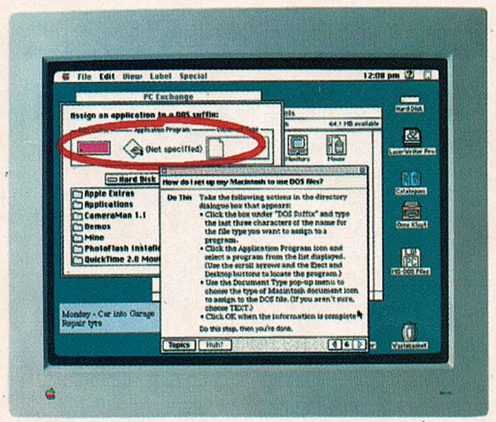
There is the option of PowerTalk™ and the latest TCP/IP client software which gives you the first step to accessing the information superhighway, the Internet.

So much is in the operating system that, with Macintosh PC Exchange™ software also included, System 7.5 allows your Macintosh to recognise any MS-DOS® or Windows™ formatted disks showing up on your desktop just like Macintosh disks.

And Macintosh Easy Open™ lets you open and edit MS-DOS and Windows files even when you don't have the original program.

A new intuitive user interface.

Giving you a whole new kind of help, System 7.5 includes AppleGuide™: a radically new and



Features: Interactive Help.

customisable interactive assistance tool, which offers you a unique version of on-screen help with thorough and clear directions on practically every function of your Macintosh.

AppleGuide takes you through – step-by-step – circling items in red, pointing you in the right direction and even performing certain functions for you. It is the most complete and effective help feature ever to appear on *any* desktop.

And with the potential to create your own help system, AppleGuide enables businesses to tailor specific 'guides' which employees, customers and others could use to complete forms, or learn new procedures or applications.

In addition, AppleScript™ lets you create new scripts by recording your actions so you can automate routine and repetitive system tasks to save time and help avoid mistakes.†

A new way of looking at multimedia.

System 7.5 also gives you improved performance, sound, file compression and full-screen video for all your multimedia applications with the inclusion of the enhanced, industry-standard multimedia software, QuickTime™ 2.0.

Features: QuickTime 2.0, Hierarchical Menus and WindowShade.

A new way of navigating.

With a new Find feature there's no more guessing where a document is filed as a detailed search reveals its whereabouts in an itemised display and you can open it immediately.

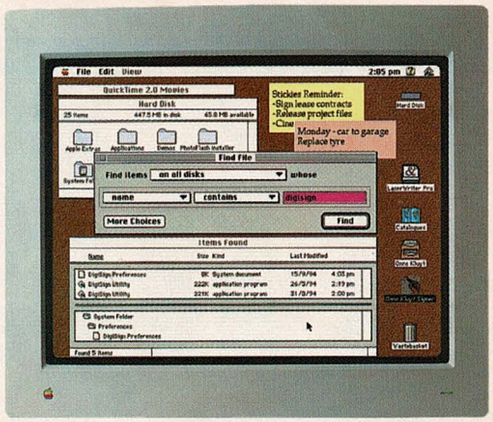
System 7.5 makes it equally easy to find the contents stored in your menus by displaying them in a flash, compliments of the hierarchical menu feature which even lists recently used servers, applications and documents for you.

A new list of capabilities.

When working with Macintosh System 7.5, you will quickly notice a number of fresh new refinements.

There's Drag and Drop, which lets you drag a selected item – text, graphics, sound, whatever – from one window (say, a memo) to another application (say, a presentation) without having to cut-and-paste.†

Moreover, you may have sent a document off to be printed only to find that it's in a huge queue; now you can easily reassign it by dragging your document to another printer on your desktop using Drag Manager.



Features: Find File, Stickies and WindowShade. Desktop printer and PowerTalk icons on desktop.

There's "Stickies," so you can keep important reminders inside your screen (instead of having paper ones crowded around it).

And WindowShade, which lets you collapse full-sized windows so that only the title bars are showing – letting you see a lot of documents, without a lot of clutter.

In total, System 7.5 shortens, condenses and simplifies so many things on your Macintosh that you'll find yourself more productive and involved in your work than ever – so it also includes a menu bar clock to help you keep track of time.

A new choice of options.

In conjunction with new or updated applications, the sophisticated font and graphics capabilities of QuickDraw™GX can make your documents look even better than ever and give you more control of printing options.

And for people who are busy keeping in touch, with additional software and the Universal Mailbox, all your faxes, e-mail, phone and Internet messages appear in one place.

Yet, even with all these options, System 7.5 requires only 8Mb of RAM on a Macintosh and 16Mb of RAM on a Power Macintosh.™ (You can install the core of System 7.5 without the QuickDraw GX and PowerTalk options, requiring only half the RAM.)

Of course, while reading about System 7.5 is informative, you really have to experience it for yourself.

To do so, visit your Apple Authorised Reseller. For the name of one near you, phone free on 0800 127753 today. And for information on upgrades, call 081 730 2828.‡

And see how much more Macintosh there could be inside your Macintosh.

Apple®
Macintosh System 7.5

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This month

Once again MACFORMAT'S Josef Morell takes a look at the wonderful world of Apple, and discovers he quite likes the look of eWorld after all...

Don't you just hate it when Apple produces something good? There's nothing that makes a Mac journalist's life more worthwhile than a good opportunity to snipe at the burghers of Cupertino or, even better, Stockley Park. But despite all the signs looking good, or rather, bad, I've been denied the chance by eWorld.

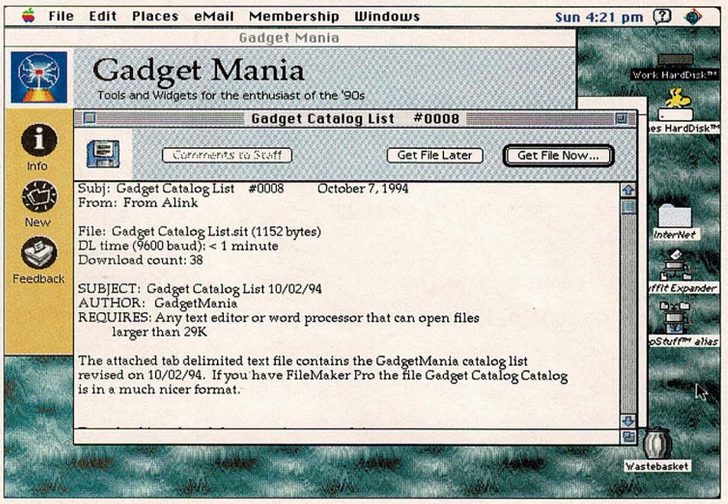
Ever since I saw the preview about a year ago, I've been convinced I was going to hate it:

I was brought up sucking on an RS232 port, and think the scream of a modem connecting is the music of the spheres

cutesy little icons like the cover of Genesis's *Duke* LP, and everything laid out like a town centre – you just click on a house to go in. You can even hear the noise of the traffic when you first connect. Ugh! So patronising.

I was brought up sucking on an RS232 port instead of a dummy, and think the scream of a modem connecting is the music of the spheres, so what do I need with simple-to-use graphical interfaces? Give me a Hayes AT command any day of the week. Or that's what I thought.

However, I must confess, having actually used eWorld for a week or two, I'm converted. It's so damned easy that anyone can do it, and that alone should bring tens of thousands of Mac users into comms who would never have dreamt of tackling it otherwise. (This has got to be considered a good thing – after all, a Mac without a modem is like a feminist without a bicycle. Or something.)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Gadget Mania
Gadget Mania
Tools and Widgets for the enthusiast of the '90s
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Comments to Staff
Get File Later
Get File Now...
Info
New
Feedback
Subj: Gadget Catalog List #0008 October 7, 1994
From: From Alink
File: Gadget Catalog List.sit (1152 bytes)
DL time (9600 baud): < 1 minute
Download count: 38
SUBJECT: Gadget Catalog List 10/02/94
AUTHOR: GadgetMania
REQUIRES: Any text editor or word processor that can open files larger than 29K
The attached tab delimited text file contains the GadgetMania catalog list revised on 10/02/94. If you have FileMaker Pro the file Gadget Catalog Catalog is in a much nicer format.
Work HardDisk™
InterNet
Wastebasket

Much of eWorld consists of discussion groups, with plenty to read and download. The problem is, everyone here is American, and there aren't many of them yet, so striking up a discussion is difficult, and an intelligent one's impossible. But when you join, that'll change.

However, I must confess, having actually used eWorld for a week or two, I'm converted. It's so damned easy that anyone can do it, and that alone should bring tens of thousands of Mac users into comms who would never have dreamt of tackling it otherwise. (This has got to be considered a good thing – after all, a Mac without a modem is like a feminist without a bicycle. Or something.)

Apple's new eWorld is based on the same technology as America OnLine, which I raved about last month. This means all you have to do to get on-line is install the software and follow the instructions. It's so simple that you'll find yourself hooked up and 'Net surfing within a matter of minutes.

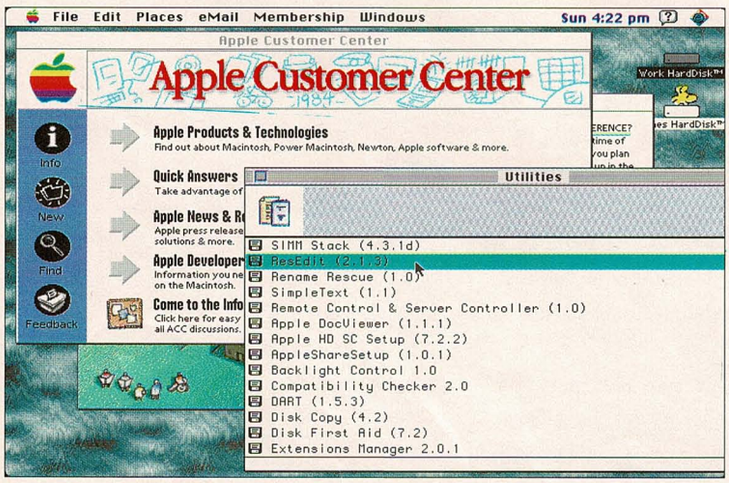
Once you're connected, you can do all the usual stuff: download files, send e-Mails, ask questions of experts, refer to databases, etc. But what makes eWorld so special is the fact that it's accessible to the non-technically minded, while letting hardened comms-men use shortcuts to get the speed they need.

By the time you read this (I love writing that, it makes me feel like the holder of privileged information!), eWorld should be available properly in the UK. At the moment it's full of Americans, but that will change, no doubt.

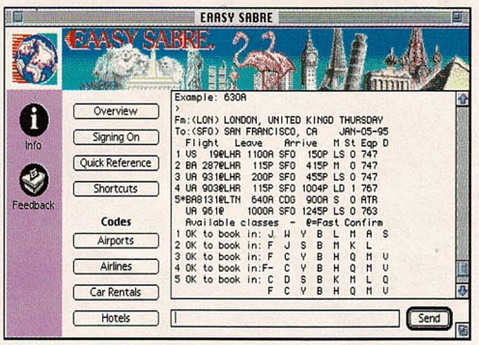
eWorld is real competition for CompuServe (sorry, but I'm not a number), and is significantly easier for a beginner to handle than trusty old CIX or the immensely disappointing Delphi. (I'll say more on Delphi another time, like when I'm convinced that I haven't missed something obvious and it really is as dreadful as it looks).

Finally, if you haven't got a modem, turn to page 107 now, send MACFORMAT £200 and join the rest of us in comms land! Using a Mac that's not connected to the phoneline is like having an answering machine in the same condition – no, really, it's true!

Josef Morrell



One of the main advantages of eWorld over other systems is its direct line to Apple and Apple resources. Of course, Apple staff are no more likely to answer an e-Mail from eWorld than they are an AppleLink, but we can always hope...

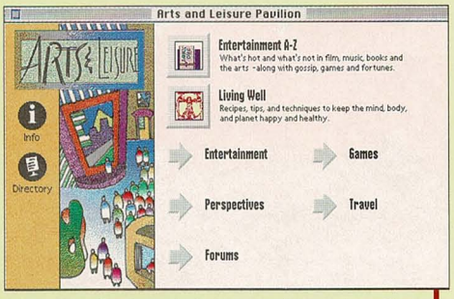

EAASY SABRE
EAASY SABRE
Info
Feedback
Overview
Signing On
Quick Reference
Shortcuts
Codes
Airports
Airlines
Car Rentals
Hotels
Example: 630A
Fm:(LON) LONDON, UNITED KINGD THURSDAY
To:(SFO) SAN FRANCISCO, CA JAN-05-95
Flight Leave Arrive M St Eqp D
1 US 194@LHR 1100A SFO 150P LS 0 747
2 BA 287@LHR 115P SFO 415P M 0 747
3 UA 931@LHR 200P SFO 455P LS 0 747
4 UA 903@LHR 115P SFO 1004P LD 1 767
5*BA91318@LTN 640A CDG 900A S 0 ATR
UA 961@ 1000A SFO 1245P LS 0 763
Available classes - @=Fast Confirm
1 OK to book in: J W Y B L M A S
2 OK to book in: F J S B M K L
3 OK to book in: F C Y B H Q M U
4 OK to book in:F- C Y B H Q M U
5 OK to book in: C D S B K M L Q
F C Y B H Q M U
Send

Now this *is* useful. Eaasy Sabre is the electronic flight reservation system, and though eWorld makes only a vague attempt to shield you from the text-based complexities of the system, with this you can find out flight times and best prices and make a reservation. Cool!

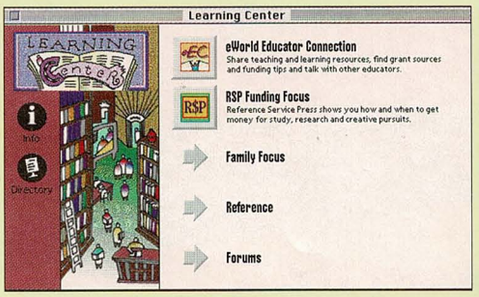
WHERE TO GET IT

For details of eWorld charges and availability, see our Apple Expo guide on page 20 of this issue.

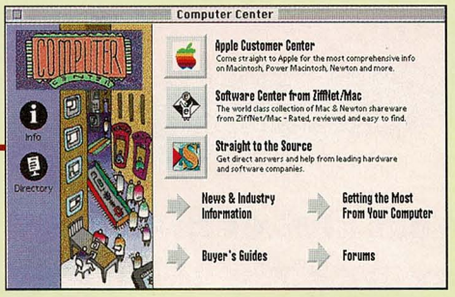
WELCOME TO eWORLD


Arts and Leisure Pavilion
Entertainment A-Z
What's hot and what's not in film, music, books and the arts - along with gossip, games and fortunes.
Living Well
Recipes, tips, and techniques to keep the mind, body, and planet happy and healthy.
Entertainment
Games
Perspectives
Travel
Forums
Info
Directory

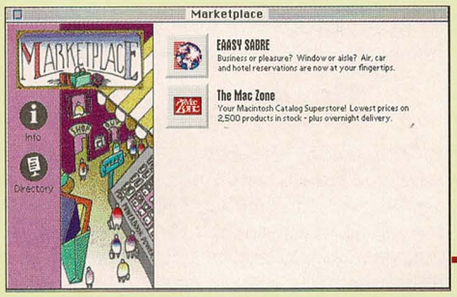
It says here,'Recipes, techniques and tips to keep the mind, body and planet healthy and happy'. Did I mention that eWorld was an American system? No?


Learning Center
eWorld Educator Connection
Share teaching and learning resources, find grant sources and funding tips and talk with other educators.
RSP Funding Focus
Reference Service Press shows you how and when to get money for study, research and creative pursuits.
Family Focus
Reference
Forums
Info
Directory

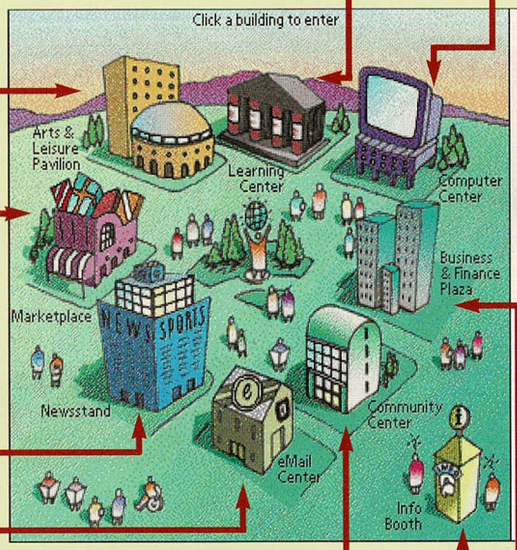
The Learning Center is one of the strongest areas of eWorld. This isn't really that surprising given Apple's strength in the so called K-12 sector in the States (The K-12 sector is kindergarten to 12th grade, or roughly the equivalent of British primary and secondary schools.)


Computer Center
Apple Customer Center
Come straight to Apple for the most comprehensive info on Macintosh, Power Macintosh, Newton and more.
Software Center from ZiffNet/Mac
The world class collection of Mac & Newton shareware from ZiffNet/Mac - Rated, reviewed and easy to find.
Straight to the Source
Get direct answers and help from leading hardware and software companies.
News & Industry Information
Getting the Most From Your Computer
Buyer's Guides
Forums
Info
Directory

Come and get it! All the free software you can eat! Most of it's been on the MACFORMAT CD of course, but nevertheless there's some good stuff on offer here. And while I hate to speak good of a rival publishing house, the ZiffNet section is really rather excellent, with exclusive software and stories from *MacWeek*. *[OK, that's enough of that – Ed]*

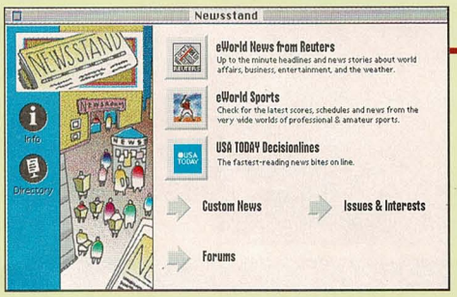

Marketplace
EAASY SABRE
Business or pleasure? Window or aisle? Air, car and hotel reservations are now at your fingertips.
The Mac Zone
Your Macintosh Catalog Superstore! Lowest prices on 2,500 products in stock - plus overnight delivery.
Info
Directory

The Marketplace is still under development, with only the (US) MacZone catalogue and the airline booking system Eaasy Sabre available. More is planned soon, however, and before long you should be able to buy just about anything (and pay shipping charges from the US).

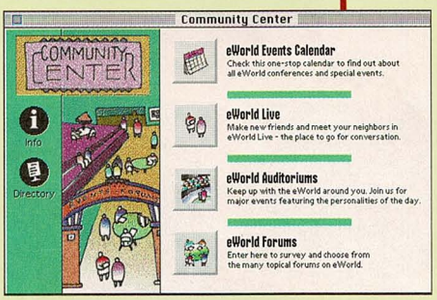


WHEN'S THAT CONFERENCE?
Double check date & time of eWorld conferences you plan to attend. Look them up in the eWorld Events Calendar.
CLICK IT, PRESS IT, SWITCH IT!
Gadget Maniacs: Report now to the new eWorld location where best & worst of high- & low-tech toys await you!
A GUIDED TOUR OF 3 GATES:
Pass through the Gates of life's passages ParetoKid leads you through his Meditation... in The Sharing Scrolls.
> READ IT EVERY WEEK! <
eWorld Weekly News is the only publication in existence covering eWorld exclusively! Grab a copy of 10/7 now!

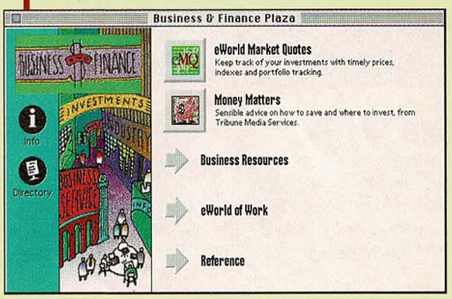
Every time you enter eWorld, these icons show you a different selection of the day's most interesting areas.


Newsstand
eWorld News from Reuters
Up to the minute headlines and news stories about world affairs, business, entertainment, and the weather.
eWorld Sports
Check for the latest scores, schedules and news from the very wide worlds of professional & amateur sports.
USA TODAY Decisionlines
The fastest-reading news bites on line.
Custom News
Issues & Interests
Forums
Info
Directory

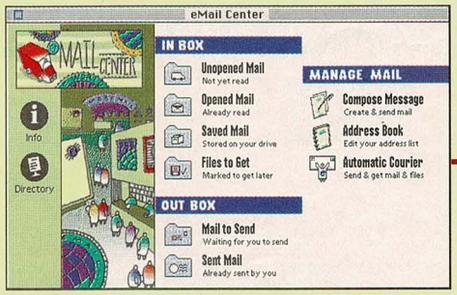
In the Newsstand are up-to-the minute (if extremely Americo-centric) news reports from *USA Today* and the slightly more international Reuters. You will also find all the latest American football, ice hockey and baseball results for those who don't find soccer, rugby and cricket interesting enough – no accounting for taste.


Community Center
eWorld Events Calendar
Check this one-stop calendar to find out about all eWorld conferences and special events.
eWorld Live
Make new friends and meet your neighbors in eWorld Live - the place to go for conversation.
eWorld Auditoriums
Keep up with the eWorld around you. Join us for major events featuring the personalities of the day.
eWorld Forums
Enter here to survey and choose from the many topical forums on eWorld.
Info
Directory

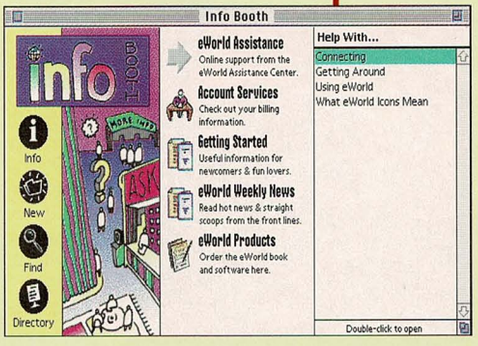
I love comms, but even I draw the line at making friends on-line. Still, if you have a life deficiency, or just like chatting up Yanks, this is the place to be. But beware: it's policed by the electronic equivalent of the SS.


Business & Finance Plaza
eWorld Market Quotes
Keep track of your investments with timely prices, indexes and portfolio tracking.
Money Matters
Sensible advice on how to save and where to invest, from Tribune Media Services.
Business Resources
eWorld at Work
Reference
Info
Directory

The Business and Finance plaza section enables you to justify eWorld to the taxman as a write-offable expense. And you can look up US share prices. Hurrah!



This is my favourite part of eWorld – its e-Mail system. It's extremely simple to use, and enables you to send files to other eWorld users. One of the best mail systems I've ever come across, it enables you to format mail within eWorld – very unusual and very welcome. It also has full Internet mail service for sending messages outside.



The Info Booth is eWorld's on-line help system. It's context sensitive, always available and explains things in clear language. But eWorld is so intuitive and simple you should hardly ever need it.

Coming attractions

What sort of games are we going to be playing over the next six months? Andy Hutchinson buffs up his crystal ball, peers, gasps, and asks you to cross his palm with silver...

You know that Christmas is drawing closer because the software companies' release schedules look fuller than Erika Eleniak's swimming costume. Having forsaken our computers during the summer for action holidays in Haiti, weather-forecasting classes in Rhyl, and scuba-diving off a Cornish sewage outlet, we all rush indoors, hug our Macs and get acquainted again. Because, according to the software companies, nobody uses their computer during the summer. What else could explain the almost complete absence of new games on the shelves of computer shops during June, July and August? And what makes them think we'll all suddenly start spending again in September? Possibly it's the thought of Christmas wish lists and countless credit cards slowly steaming... Anyway, there are a lot of new games being developed, and it's my honour to introduce you to a few of them.

This month's CD has 400Mb of game news & previews, including demos & slide-shows

The ones to watch

Hidden among the release schedules this autumn are several very interesting games. These are titles that have done very well on another format, or which we just think are going to be groovy anyway. Expect full reviews of all the following titles in future issues of MACFORMAT.

DiscWorld

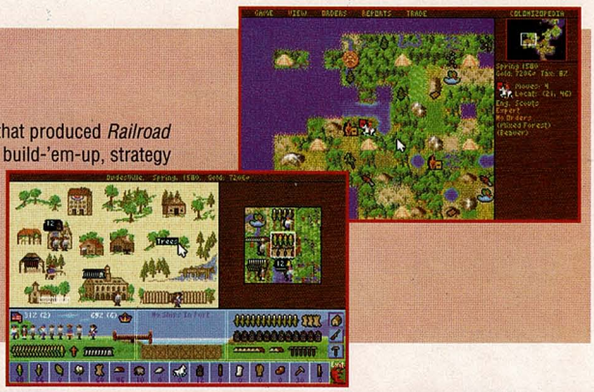
Psygnosis
Due for release next month

The Terry Pratchet novels get the CD-ROM once-over. *DiscWorld* is a very funny fantasy world crammed full of silly characters doing silly things. I just hope that they do a good job with this game, because the novels are brilliant. Expect an adventure-cum-RPG style game with plenty of weird goings-on.

Colonization

Microprose
Due for release next month

Developed by the same team that produced *Railroad Tycoon*, *Colonization* is a new build-'em-up, strategy simulator. The idea's quite simple: conquer new worlds and then make sure that civilisation prospers there. Anyone who got a buzz out of the *SimCity* series should love this one.



Zone

Leviathan Media
Due for release next month

We've included this one because it sounds vaguely like *Spectre*. This is a 3D-rendered action-cum-strategy game. You control an intergalactic species who have to battle it out for supremacy in a combat arena. The good news is that this is a network game, so expect productivity to crumble in offices where there are a few Macs connected together (like this one, for instance).

Wolfpack

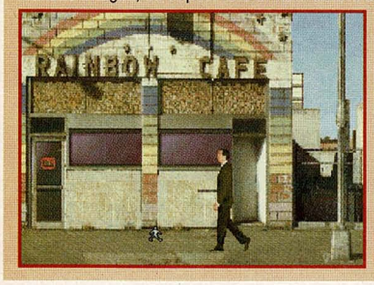
Novalogic
Due for release this month

This was a particularly brilliant game on the PC, so there's every reason to think that it'll be equally brilliant on the Mac. You take command of a WW2 submarine wolfpack or surface fleet and attempt to blow the head gaskets out of the other side. The programmers reckon that this one is historically accurate, in that your weapons and instruments are precisely keyed to the war year you choose to play in. But then, laser-guided missiles would look a bit out of place on a WW2 Destroyer. The game also includes a construction set, enabling you to re-create actual battles (the sinking of the Belgrano, perhaps?). Watch out for both floppy and CD-ROM versions.

Police Quest 4

Sierra
Due for release next month

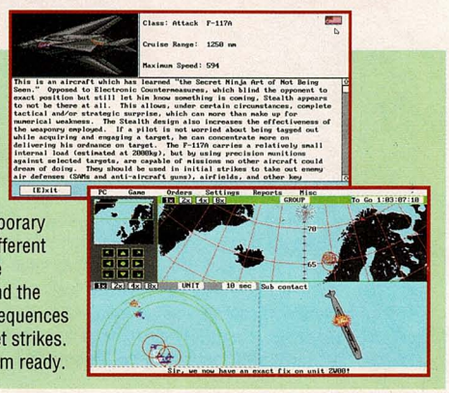
I've never been an enormous fan of the *Police Quest* series, but this one promises to be a bit different. You play a cop (surprise, surprise!), with the idea of the game being to solve a series of crimes. This version will be using photo-realistic images, so expect lots of ham actors and exterior shots of buildings.



Harpoon 2

Three Sixty Pacific
Due for release next month

This is the latest in a very short line of submarine simulators. You control a Harpoon nuclear submarine that operates in contemporary theatres of conflict. There are 20 different scenarios (that's missions, if you're European) set in hot spots all around the world. There are live-action video sequences of both your launches and the target strikes. More good news: the game's modem ready.

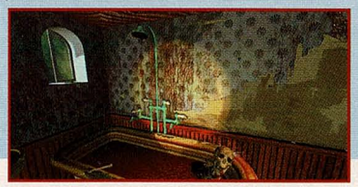


The 11th Hour

Virgin

Due for release next month

The 11th Hour, the follow-up to the million-selling *7th Guest*, is a fully rendered adventure-cum-strategy game with over an hour of full-motion video. The game's set in a haunted house where you've got to solve puzzles (there's 40 of 'em), complete interactive quests (there's 13 of 'em), ask yourself how much data it takes to fill a CD-ROM (650Mb), and then gaze in awe at the number of CDs that come with the game (there are three of 'em). The game's got quite a violent theme, so it'll receive at least a '15' rating.



Dungeon Master 2

MacPlay

Due for release next month

Anyone who owned an Amiga or ST will have fond memories of the original *Dungeon Master*, and so this release is bound to create a bit of a stir. *Dungeon Master* was the first half-decent RPG game. It combined maze-mapping with spell-casting and was very atmospheric. This new version looks pretty similar to the original, although the artwork is being completely redesigned for the Mac. Expect to see lots of bug-eyed monsters, healthy doses of spell-casting and characters with names like Pendar the Elusive.

Alone in the Dark 1 & 2

Infogrames

Due for release next month

Definitely two to watch. The *Alone in the Dark* games created a hell of a stir in the PC market thanks to their innovative graphics. Just for a change, these games use real-time 3D graphics superimposed over very tasty, rendered backdrops. The games combine combat with adventure and search gamepiay. Considering that PC owners have been yattering on about how this game will never appear on the Mac, it's now our turn to smile smarmily and flick the Vs at them (metaphorically speaking, of course).

Flight Unlimited

Virgin

Due for release early '95

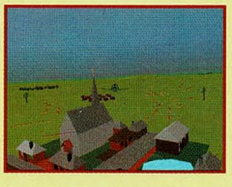
Here's a novel twist: a game with realistic flight dynamics. *Flight Unlimited's* actually designed to teach you to fly – a process that involves 25 interactive lessons. Once you've learnt the necessary skills you can test your aerobatic prowess and then use your winnings to customise your plane. Unfortunately, it looks as if this will only be released for the PowerMac. (Incidentally, that bloke who rammed the White House in a light aeroplane claimed he only did it because he couldn't get hold of this title. Allegedly.)

Out of the Sun

Domark

Due for release this month

Out of the Sun is yet another historical flight simulator set in WW2, which offers players the option of fighting for either side (don't they all?). There are four different scenarios, including the Battle of Midway and the Battle of Britain, during which you take part in air-to-air combat, as well as bombing and torpedo runs. It's also reputed to have a realistic flight model and properly detailed aircraft. The good news is that it's been enhanced for the PowerMac.



Ultima 8: Pagan

Origin

Due for release early '95

Ultima 8 is widely regarded as the best in the series. You play Avatar, a warrior stranded in the land of Pagan. During the course of the game you've got to ally yourself with the subjugated locals and survive endless attacks before confronting the evil Guardian who zapped you to Pagan in the first place. The game uses isometric 3D graphics and features a cast list longer than *The Winds of War*. Expect lots of Celtic imagery.

Doom

IdSoftware

Due for release early '95

Total, utter, complete, devastating, bloody, gruesome fun. *Doom* is just about the most non-politically-correct game there is. To say that it's violent would be an understatement on a par with accusing Michael Portillo of being right wing. This is a 3D texture-mapped first-person entrail-'em-up, in which you play a psycho marine who's been stranded on a colony on Mars, where some silly sod has accidentally opened up a portal to hell – well, it's a mistake anyone could make. You've got to make your escape from the Mars colony by obliterating each and every demon, zombie, ghoul and cacodaemon that crosses your path. To do this, you use weapons that lie scattered about the complex, such as a chainsaw, a double-barrelled shotgun, a rocket launcher and a plasma rifle. Imagine, if you will, a cross between the films *Zombie Dawn*, *True Lies*, *Gallipoli* and *Aliens* played out on the set of *Prisoner Cell Block H*. You get the picture?

Doom 2

IdSoftware

Due for release early '95

Doom 2 picks up where *Doom* left off. You've made it back to Earth and are just about to relax with a *Playboy Wet 'n' Wild* video when you realise you've brought a few stowaways back with you, and accidentally helped the demons to conquer Blighty. *Doom 2's* well over twice as large as the first game, it's quicker, there's a new weapon, six new monsters and some improved artificial intelligence. There's also more of an emphasis on the puzzle element of the game, and it's a lot, lot, lot harder. Basically, if you can finish this game without using any of cheat modes, then you should sign up with the SAS immediately. It's worth noting that this game is even bloodier than the original, so you can understand why it will carry an '18' rating. For extra fun-appeal, just imagine that the monsters are John Major's cabinet ministers. Well, it works for me.

Turn over for more...

Coming attractions

And here are some you probably won't be playing, plus a full round-up of other titles just around the corner...

And here are those games which, from the description, sound a bit on the 'dubious' side. These are the games that I reckon are forever doomed to sit neglected on shelves gathering dust. But needless to say, they'll undoubtedly sell in the millions and I'll look a right pilchard.

Virtual Valerie 2

Reactor
Due for release next month
Oh dear! For all you sad, lonely members of the dirty raincoat brigade, here's Valerie. She's a digitised woman and she'll do lots of naughty things for you. This version comes on CD-ROM, so there'll undoubtedly be plenty of nudity, not to mention the odd naughty word. At standard CD prices though, it's probably cheaper to get yourself a mail order bride. I have little doubt that this will go platinum on its first day of release.

Total Distortion

Pop Rocket
Due for release next month
Apparently this is the first 'music video adventure game' in which you travel to the 'distortion dimension' in search of fresh material for music videos. It may have interactive 3D animation and talking characters, but any game that foists 'virtual' rock stars on us deserves to be ceremonially burnt with a flame-thrower.

Voyeur

MacPlay
Due for release next month
Here's yet another dubious excuse for some digitised, full-motion titillation. The idea of this game is to spy on the American President with a video camera. By aiming your lens at the windows of El Presidente's house, you've got to amass enough evidence to bring about his fall from power. All of which is the most transparent excuse for full-motion video sequences of half-naked women that I've ever heard. To be honest, you'll get more cheap thrills watching *Baywatch*. And to think this one's touted as a political thriller.

I Have No Mouth and I Must Scream

MacPlay
Due for release early '95
With a name like this, I've just got to see how this one turns out. No, this isn't a story about Princess Diana or even the Queen's annus horribilis. Oh no! *I Have No Mouth and I Must Scream* is a cyberpunk game in which you take a virtual journey through a malicious supercomputer. By experiencing events from the point of view of five different characters, you've got to destroy the computer. It doesn't sound too promising, but it certainly wins my vote for dodgiest game name around.

Dragon's Lair

ReadySoft
Due for release next month
Even in the arcade this was an absolutely appalling game. And now they've got the nerve to unleash it on an unsuspecting Mac public. All right, so it looks absolutely brilliant, but it has zero gameplay. Quite how dinosaurs like this can be released nowadays is beyond me.

Mighty Mike with Automatic Recoil

Pangea Software
Due for release next month
Let me put it this way: Mighty Mike is the American equivalent of Action Man. Still not convinced? You haven't heard the storyline yet: the Fuzzy Bunnies have got loose in a toy store and you've got rescue them. Purlease!

What's coming soon

Due in the very near future:

- *TacOps* – Arsenal Publishing – A tactical level tank warfare game.

Due this month:

- *A-10 Attack* – ParSoft Publishing – Flight sim.
- *Better Dead* (CD-ROM) – ARTSector One Inc – 3D adventure.
- *Breakthru* – Spectrum Holobyte – A strategy game.
- *Clue* (CD-ROM) – Virgin Interactive – Board game sim.
- *Cyberfist* – Leviathan Media – An action fighting game.
- *Dark Castle 1994* – Delta Tao – Updated, colourised version of the classic arcade/adventure game.
- *Dynasty League Baseball* – Design Depot – Highly detailed strategic baseball sim.
- *Fun House* – Amtex Software – Pinball.
- *HELL*: A Cyberpunk Thriller (CD-ROM) – Take 2 Interactive – Multimedia adventure.
- *In Search of the Fabulous Fuzzbox* (CD-ROM) – MacPlay – Comic-book like CD-ROM game.
- *Leisure Suit Larry 6* (CD-ROM) – Sierra – Enhanced for CD-ROM with full speech.
- *Lode Runner* – Dynamix – A modernised two-player version of the original *Lode Runner*.
- *Microsoft Arcade* – Microsoft – Classic arcade games.
- *PegLeg* – High Risk Ventures – Changeling Software.
- *Quantum Gate* (CD-ROM) – Hyperbole Studios – Virtual cinema 3D game.
- *Quest for Glory 4* – Sierra – Adventure/RPG.
- *Robinson's Requiem* – Readysoft – A heavily puzzle-orientated adventure game.
- *Sorcerer* (CD-ROM) – Softstream Int. – Fantasy adventure.
- *Star Trek, Deep Space Nine: The Hunt* (CD-ROM & Floppy) – Paramount Interactive – Adventure game.
- *Strategic Conquest 4.0* – Delta Tao – Updated version of the classic war game. Two new units.
- *The Daedalus Encounter* (CD-ROM) – Mechadeus/Media Vision – An action-adventure science fiction game.
- *Trivial Pursuit* (CD-ROM) – Virgin Interactive – Board game simulation.
- *Tubular Worlds* – Dongleware – Arcade/action game.
- *Warlords 2* – SSG – Advanced version of the original.
- *2044: The Overthrow* (CD-ROM) – Spiral Matrix – A futuristic adventure game.

Due for release in December:

- *Planetfall* (CD-ROM) – Activision/Infocom – The sequel to the original adventure game.
- *Rivers of Dawn* (CD-ROM) – New World Computing – A multimedia RPG title.
- *Viper* (CD-ROM) – Cyberflix – Based on the Paramount television series of the same name.

Due for release in Jan '95:

- *Assault on Everest* (CD-ROM) – Take 2 Interactive – interactive edutainment-oriented voyage game.
- *Bureau 13* (CD-ROM) – Take 2 Interactive – Interactive graphic adventure.
- *Castle of Dr Brain 3* (CD-ROM) – Sierra – Enhanced for CD-ROM with full speech.
- *Master of Orion* – Take 2 Interactive – Strategic space sim.
- *Skullcracker* (CD-ROM) – Cyberflix – Arcade horror title.
- *Star Crusader* (CD-ROM) – Take 2 Interactive – State-of-the-art space-flight combat simulator.
- *Star Trek: Judgement Rites* – MacPlay – Sequel to *Star Trek's 25th Anniversary*.
- *Terminus* (CD-ROM) – Reactor – Science fiction interactive movie game.
- *War Patrol* – Alliance – A WW2 submarine simulator.

Due for release in first quarter '95

- *Beyond Squad Leader* – Avalon Hill/Atomic – Computerised version of Advanced Squad Leader.
- *Blood Net* – Take 2 Interactive – Cyberpunk Vampire game.
- *Dark Streets* (CD-ROM) – Cyberflix – Electronic film noire.
- *Darkseed 2* (CD-ROM & Floppy) – Cyberdreams – Sequel.
- *Dust* (CD-ROM) – Cyberflix – Interactive tale of a lawless town in the Wild West.
- *FLIGHT Unlimited* – Looking Glass Technologies – Flight sim.
- *Gabriel Knight* CD-ROM – Sierra – CD-ROM version.
- *Harpoon Classic* (CD-ROM) – Alliance – Major update of this classic strategy game.
- *Super Wing Commander* – Origin – Space combat sim based on the classic *Wing Commander* series for the PC.
- *Titanic* (CD-ROM) – Cyberflix – Adventure/thriller.
- *X – First Start* – Imagine It Inc – Sci-fi graphic adventure.

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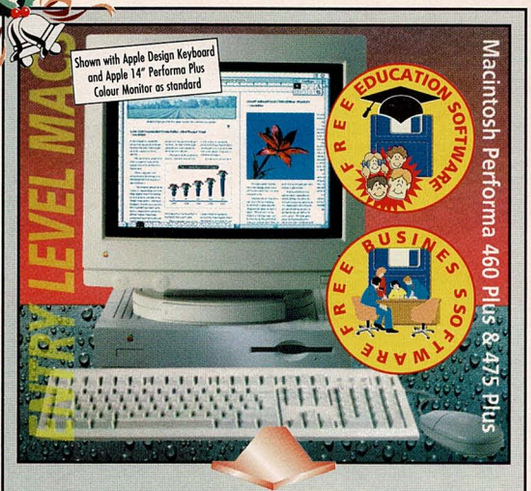
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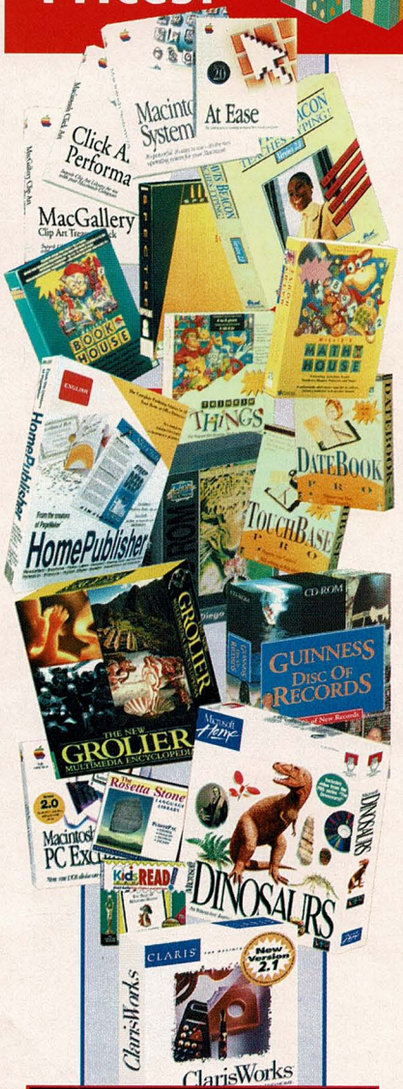

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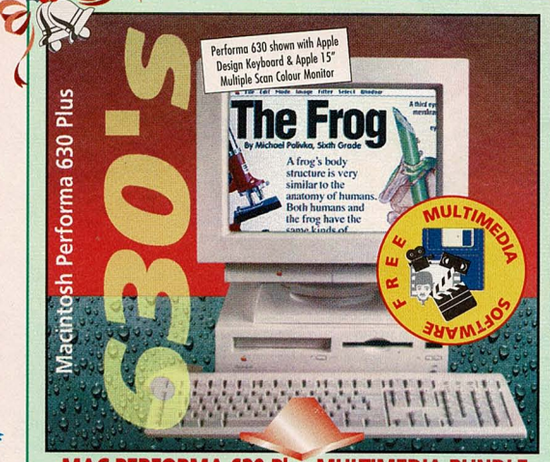
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630's
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By Michael Polivka, Sixth Grade
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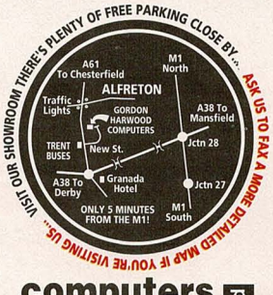

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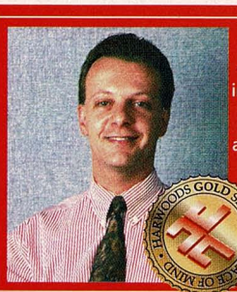

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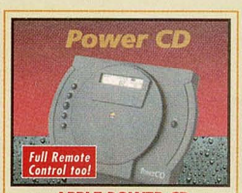

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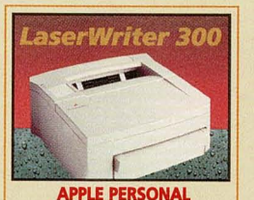

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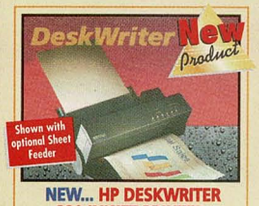

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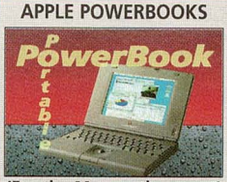

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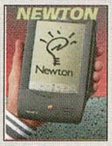

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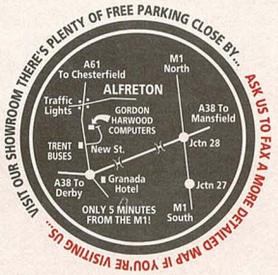

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Oh no! We've run out of T-shirts! What can your letter win you now? Write to 'Apple Talk', MACFORMAT, 30 Monmouth Street, Bath BA1 2BW.

It was inevitable, I suppose, and now it's happened. We are no longer giving away an exclusive MACFORMAT T-shirt for every letter published. It isn't that we don't love you any more. It isn't even that Stuart the Publisher's generous mood finally came to an end – we've simply run out of stocks. So while a new batch are being 'done' (I believe the technical term is), we're now giving away a splendid MACFORMAT *binder* for every letter published here. Write right now!

Root out the moles

Have you looked at your Preferences folder (in the System folder) lately? You've been happily looking through all those wonderful disks or CDs that MACFORMAT has been giving us and trying out the jewels, but many of the applications and Accessories that you tested have left their Preferences files behind, and they are still there, filling up your System. You don't want most of them, because you are not going to use their programs again, so throw them out and let your System breathe again.

It can be a bit of chore to do this, but you can make life simpler for yourself. When you have cleaned out this month's unneeded Preferences files, use the Label menu to give the same colour to all the remaining Preferences. Then next month, open up the Preferences folder and, using the View menu, look at it 'by Label'. You'll find all the newly added Preferences together, unlabelled and uncoloured. Check through these to see if there is anything you still need and throw out the rest.

War correspondent Christopher Long in Bosnia [MACFORMAT 16] spends 15 minutes a day on housekeeping – Disk Doctor + Speed Disk + re-building the Desktop. Maybe we should all spend 15 minutes a month doing the same when we have finished looking at our latest goodies.

John Bethell
Chichester

Sound advice – obsolete Preferences files are a sheer waste of disk space. An even simpler way of managing them is to use a neat little utility called PrefsCleaner, *which automatically checks for Prefs files that don't have a corresponding application program. It was yours free on last month's cover disk – if you missed that issue, turn to page 102.*

Beyond the pale?

I wonder if for once Apple will acknowledge that it has customers outside the USA? The Macintosh Users Forum on CompuServe is running a special offer from Apple whereby the forum members can get System 7.5 at a very substantial discount – for $49.95! Needless to say, that offer is not open to anyone outside the USA.

I look forward to Apple announcing that it will be charging the UK equivalents of US prices for System 7.5, and that if it gives a discount to customers of one nationality then so it should to all.

Andrew Gilbart
Stockport

$49.95 is about £33, give or take. The current UK list price of System 7.5 is only three times as much – £105.75 (about $157 or so) – though 'street price' is bound to be much less.

Better looking

In MACFORMAT 17, Michael Veal says he had to get rid of his Performa Plus monitor and buy 'a new decent screen'. The Performa Plus is definitely not as good as an Apple RGB monitor, but there is a way around its brightness problem. Go to the Monitors Control Panel in your Apple Menu, hold down the [option] key and click on 'Options'. Click on the 'Use Special Gamma' check box, then on 'uncorrected gamma' and hit OK. You will notice the screen go darker. Twiddle a little with the brightness and contrast wheels on the monitor and – hey! – a better looking screen!

Christian Riley
Ferryhill, Co Durham

What I still want to know, though, is what on earth is a 'gamma' anyway...?

Violent objection

I was feeling quite elated about the new issue of MACFORMAT (issue 18) and much looking forward to the usual goodies on offer on the cover disk. I was however deeply disturbed at the message I found when I went to play *Push Push*. It informed me that violence on computers was bad and that the politically correct movement was synonymous with enlightenment.

I abhor the politically correct movement as much as I do dim-witted people who continue to equate game and movie violence with the real thing: rape and murder existed for millions of years before the first 2D images ever appeared. Politically correct people are intellectual retards who need the social crutch of a-rule-for-every-occasion to get them through life without having a nervous breakdown. Under various guises it has been tried before, only to discover that over-regulation and bans are regression and cer-

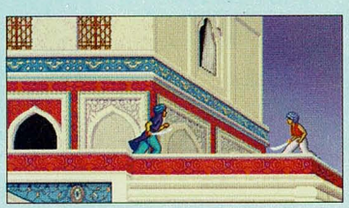
THE SAD TALE OF AN AVERAGE MAC

When I rushed home to try my new demo of *Prince of Persia 2* on MACFORMAT cover disk 12 *[Uh-oh. Here it comes – Ed]*, I was rather disappointed to find that it didn't work on my father's LCIII with 4Mb of RAM. It wanted 3Mb (3,072K) of RAM free, and I could only offer it about 3,000K with Extensions Off. *[That would have been my first suggestion – Ed]*

I tried Virtual Memory, but the demo wanted Virtual Memory off. *[It does that. It doesn't like* RAMDoubler *either – Ed.]* That week at school, I asked a friend whether he had any utilities that would free up memory. His reply was an application called *Bully 1.0d1* which 'kills the Finder' and then boots the application that you dragged on to it. It worked!

I hope this provides an answer for anyone who was unable to run the *POP2* demo. But in future would it be possible for you to select *only* software for your cover disk that will work with 4 megabytes of RAM, so that readers like me who are stuck with an average Macintosh can still enjoy the MACFORMAT cover disks?

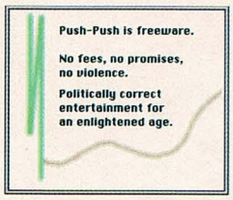
Alex Langhans
Medindie Gardens
South Australia



So, you want to play, then, Prince? Do you have the RAM to do it? Bwah-ha-ha (etc).

So far, other solutions to the Prince of Persia 2 *problem have ranged from using* At Ease *instead of the Finder (it takes up less RAM) to using* ResEdit *to fool the System into thinking that the* POP2 *demo is the Finder – for more details see* MACFORMAT *16. We haven't come across* Bully *before – can anyone send us a copy? (Assuming it's shareware and can legally be copied, of course!) In the meantime, there's a similar utility called* XoLaunch *on this issue's covermounted CD-ROM – try it out and let us know what it does for you.*

How about the bigger question raised by Alex (this issue's token Australian): would you prefer to do without exclusive demos of big *new games on the* MACFORMAT *cover disk? What do you most* want *to see on the disk? Write to 'Disk-cussion' at the address on this page.*



'Politically correct': the two most provocative words you can find on a game's intro screen?

tainly not enlightenment.

I strongly object to advertisements incorporated into computer software, whether they are for products or politics.

Michael Ryan
Dublin, Ireland

The irony is, you wouldn't really expect much violence in a puzzle game anyway. Boasting that there isn't any is a bit like boasting that your ice-cream doesn't have any chilli in it. Anyone else got any strong views on 'political correctness'?

Buy the bloody thing

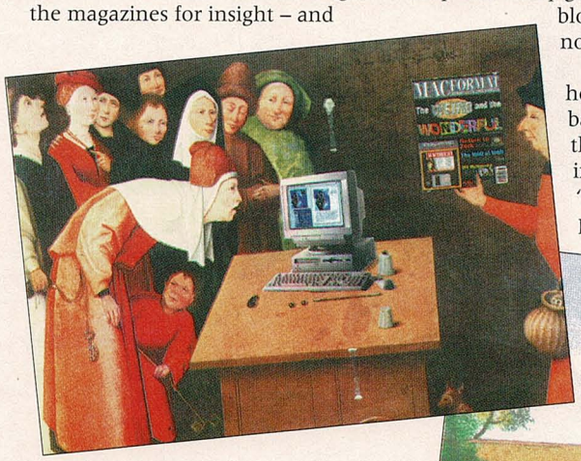
I am writing in (what I see as) defence of MACFORMAT. There have been several letters of late complaining that the software on your cover disks can or cannot be run on various Mac models.

I first bought MACFORMAT around issue 4, simply because the information content was unlike any of the other Mac magazines'. I subscribed because I know the standard of your articles is consistently far above that of the competition (mentioning no names...). As to the cover disk (and now CD), I look on these as an added bonus. Long after I have finished with the various disks, I am still returning to the magazines for insight – and often help. With such recent articles as the excellent profile of Christopher Long and the continuing saga of multimedia, I am extremely pleased with my investment. So if people are so *terribly desperate* to play *Prince of Persia 2*, why don't they go and buy the bloody thing? (I am not a fan.)

I hope that this helps redress the balance of some of the recent scathing attacks on the 'software' that people buy, which just happens to have your magazine attached!

Dr S Leppard
Toulouse, France

As I write this, it's 5.30 on a sunny Saturday afternoon, and Derek is thigh-deep in SCSI leads and hard disks, trying to get this issue's cover CD-ROM to copy properly. (If you can run the Slide-shows in our Inside Mac Games special section, you'll know that his hours of bitter struggle bore fruit.) I'm afraid that no matter how hard you try, you just can't please everyone!



Two more winners of MACFORMAT binders: Mike Fitchett of Derby has sent us a postcard of the Leeds to Liverpool canal at Newlay, near Leeds. Nothing special about that, you say – but this is a picture created by Mike himself in that well-known art program *ClarisWorks 2.1*... Jill Strong of Brighton came up with a picture by Hieronymous Bosch called 'The Conjurer' (1475–1480). He certainly was ahead of his time, old Bosch, eh? Remember, whenever you write to MACFORMAT or enter a competition, *any* eye-catching postcard could win you an exclusive MACFORMAT binder too!

Here's lookin' at you

I'd hate to destroy the innocent fun of thousands of sad Extensions freaks out there but I've found a real live actual use for those Eyeballs that sit, apparently useless, in so many menu bars. If you have a PowerBook with a crappy screen, you'll know how difficult it can be to find that submarined cursor. Your problems are over! Install the Eyeballs and there'll always be a direction-finding tool to help you find it. Just follow the eyes!

Andrew Moreton
London EC1

I normally have a desktop Mac, but I had to use a PowerBook not long ago and it only took me about 35 seconds to discover that Andrew is dead right. Brilliant. Anyone know any other gems that hide their light under a bushel?

Alex Summersby

Got something to say? Write to 'Apple Talk' at the address on the opposite page.

CRUISING THE KEYS

Last issue we brought you some useful System 7.1 tips from Henry Merrit of Cambridge. This month, some tips from Henry for Microsoft Word...

■ Are you using the Work menu? If you aren't, you should. This menu appears automatically whenever you have even one entry from the Glossary (usually a part of the Edit menu) added to it. Simply press [command] [option] [shift] [+] (the plus sign from the shifted '=' key, *not* the one from the numeric keypad) and then choose the glossary entry you want – say, 'Date'. The Work menu will now enable you to put the date anywhere in a document with only one mouse action (and it keeps better track of the date than most people). Add as many Glossary entries to the Work menu as you want – your name, address, etc.

■ Put the Word Count facility easily at hand by assigning it a keystroke you never use (say [command] [shift] [W]). To do this, add 'Word Count' to the Tools menu if it's not already there. Then hold down [command] [option] [+] (from the numeric keypad this time), choose the command from the Tools menu and then enter your keystroke. Simple!

■ If you want to give a full 'professionally typeset' appearance to your documents, try replacing the character pairs 'fi' and 'fl' with the proper single-character 'ligature' symbols. Do this *only* after spell-checking your document (the spell-checker won't recognise the ligatured letters). The 'fi' is at [option] [shift] [5] and the 'fl' at [option] [shift] [6]. Use the 'Replace' command from the Edit menu, but *don't* use 'Replace All' or you will end up replacing even the letters that should be capitals.

■ Speaking of the spell-checker (in *Word* 3.1 and 4.x, at any rate): *Matthew Williams* of *Dunstable* points out that it won't recognise the word 'childcare' and will suggest 'kidnaper' instead!

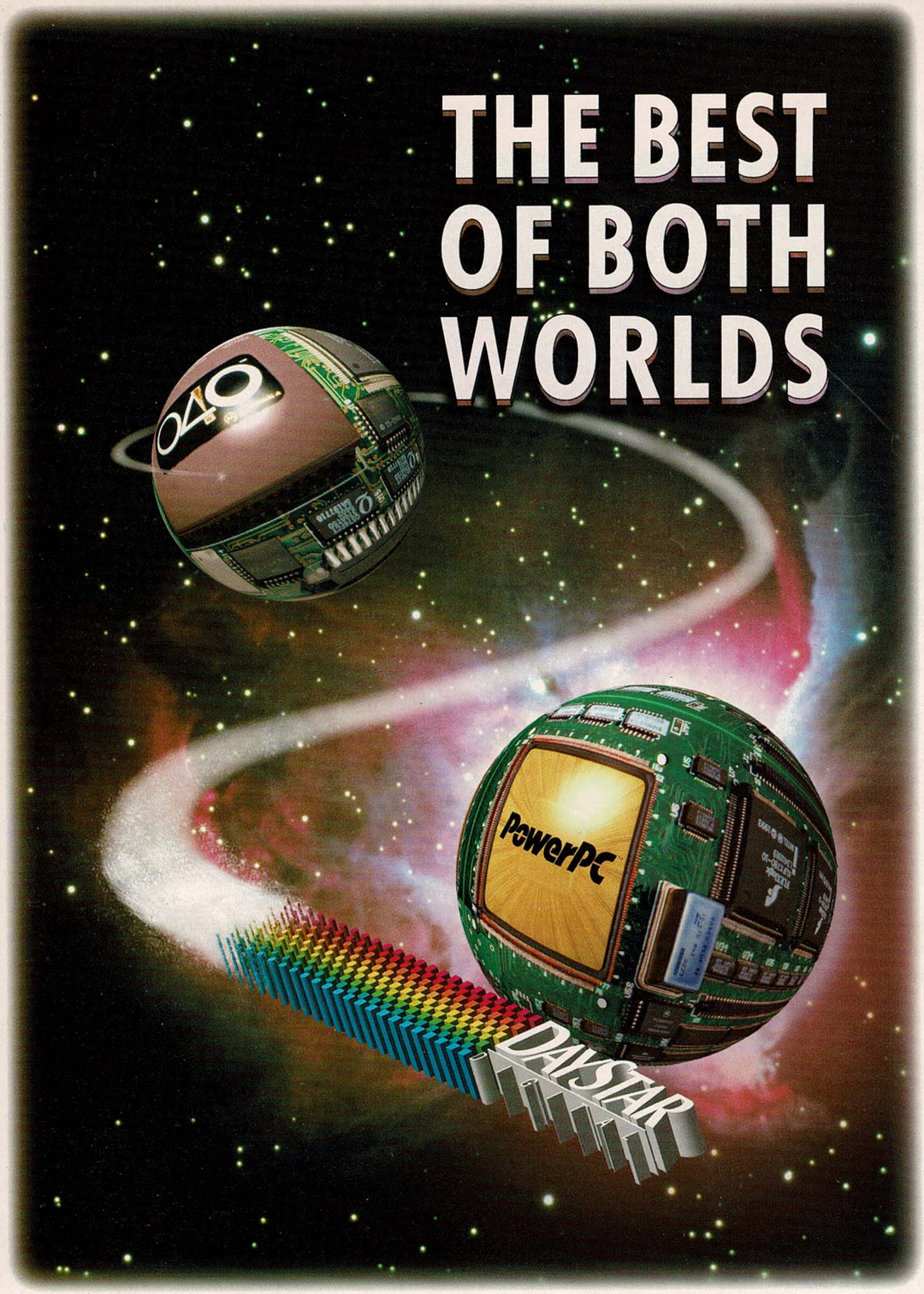
Ahem. Matthew makes amends with some tips for what some people think of as the least useful Control Panel:

■ Most of the people I know find it very difficult to actually see exactly where the cities are on the map. Hold down the [option] key when you open the Map Control Panel and you will find a greatly magnified map, making things much easier to see. You can also find the middle of nowhere by typing 'MID' – it's somewhere down by the Antarctic. To view the cities in alphabetical order, hold down the [option] key while you click on 'Find'. Lastly, you can have a colour map by copying the colour map in the Scrapbook (just use [command] [C]) and pasting it into the Map Control Panel (with [command] [V]). However, having a colour version does slow down the scrolling of the map.

Do you have any keystroke shortcuts, tips or discoveries? Send 'em in and you could win yourself a binder too.

ELECTRONIC SOAPBOX

Unfortunately, space on these pages is limited, so we can only print a selection of the letters we receive – and the shorter your letter, the better its chances of being printed. If you have something to say at greater length, write to our 'Soapbox' section (see page 124) or send your musings on disk for our CD-ROM 'Readers' Corner'. Give us your letter as a *TeachText* document (so everyone can read it) and we'll put it on the CD (subject to legal considerations – no defamation or obscenity, please!). Mark your disk 'MACFORMAT Readers' Corner', be sure to add your name and address, and please note we cannot return your disk. Our address is on the opposite page.



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*Check online electronic services for the latest list of PowerPC native applications.

Unleash the Power!

While the newest Macs boast blistering performance, most of us are still struggling with geriatric Macs with all the power of a zimmer frame in the Indy 500. Don't despair! Here's how to unleash the potential of your Mac...

What do you use your Mac for, and how much time do you waste waiting for it to do it? If you find yourself drumming your fingers, cursing, or making endless cups of tea (and subsequent trips to the bathroom), then you need to soup-up your Mac.

This can be a problem even if you only use your Mac for word processing. Software designers get lazy – the more power there is, the more they use. Applications are getting better, but they're also getting fatter and slower. This means you need to keep buying quicker Macs just to work as fast as you're used to.

But buying a new Mac every year is a little expensive – although prices are steadily falling (in power-per-pound terms). And while prices might not fall as far as you'd like, they fall far enough and fast enough to give your old Mac the second-hand value of a pre-war Skoda.

An accelerator card is the answer. After all, why bother changing your keyboard, mouse, monitor and box when all you need to fix is the hardware inside? Practically any Mac can be accelerated (even a PowerMac – details in a future issue), and there are two main ways of doing it. First, you can go for an official Apple upgrade. In fact, this is more of a conversion. The hardware inside your box is essentially swapped for a new model's. Your Mac has to go back to the dealer for this, and you pay a premium price, but what you get back is a bona fide Mac – that is, its warranty is still intact. Of course, you can only do this if there's an off-the-shelf upgrade suitable for your model.

The second option is cheaper and quicker, and comes in the form of a third-party accelerator card. You can fit this yourself, quickly, and at home. The trouble is that you lose your original warranty the moment you open up the case. (Only one Macintosh model so far – the 630 – enables you to add a card without invalidating the warranty.) If your Mac is more than a year old, this isn't a problem (the warranty is out of date anyway). On the other hand, if your Mac is less than a year old – well, you'll just have to take your chances. Or, if you are feeling especially insecure, you could always take out a maintenance contract.

What will accelerators do?

You can speed up mathematical calculations and rendering work with a co-processor, speed

A CLASSIC CASE TO CRACK!

The Mac Classic was never designed to be upgraded. There is an expansion slot of sorts, but this is usually taken up by a much-needed memory card. You have to clip the accelerator cards directly over the motherboard, which is a bit of a bodge and a worrying thing to have to try to do.

First, though, you need to get the case open. For this you need a special tool kit. We got ours from MacWarehouse (tel: 0800 181 332) for £14.

Tool number one is a special long-handled Allen key that looks a bit like a malformed coat-hanger. You need this, first, because the Classic case is held together by four screws with special heads, and second, because two of them are deeply recessed in the carrying handle, and no other tool will do the job.

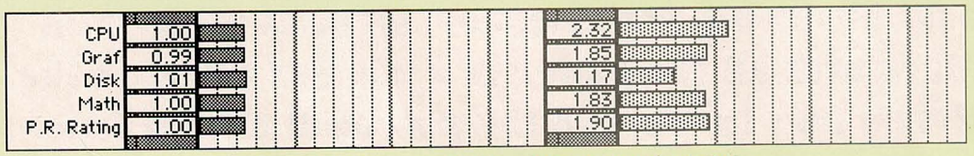
Tool number two is a heavy-duty bulldog clip known as a Mac cracker. You insert the closed jaws of the clip in the gap in the casing around the front of the machine, then squeeze the levers of the clip together to slowly prise the two parts of the case apart, carefully working your way around to lever it off evenly.

Tool number three is an earthing strap that goes round your wrist at one end and plugs into your Mac's mains lead at the other. Don't worry, it's smarter than it sounds. The strap is connected *only* to the earth pin and you *don't* leave the wall socket switched on. The purpose of this bizarre fashion accessory is to discharge static electricity from your body. High static charges can damage chips, so this is a wise precaution. In the absence of a earthing strap you should touch some substantial metal object before handling chips. *Don't* touch anything substantial and metallic inside your Mac Classic! This machine has a built-in monitor that can carry lethal voltages even after the machine has been turned off. Make sure you keep your twitchy fingers well away from the high-tension circuitry towards the front of the machine – unless you want to turn into a six-foot kebab, that is.

Having got the back off the Classic, which is easy with the right tools, you then have to remove the memory card (if fitted) before disconnecting three leads from the motherboard. This is especially tricky, unless your name is Edward Plierhands. Having done that, you slide out the motherboard and proceed to clip on the accelerator. The motherboard slides back in, the leads are reconnected, the memory card goes back in and you check your Mac boots up OK before putting the case back on. Personally, I'd get a dealer to do it – or get a new Mac...

Upgrading a Mac Classic

The Classic and SE (and the old Plus, for that matter) are special cases, both figuratively and literally. Figuratively, because they're the models that most need accelerating (being based on the lowly 68000) and literally, because you need special tools to get into them. It's a bit ironic, though, that the machines most in need of accelerators are also the hardest and most dangerous to fit.



Here are the results from the Performer 2 (right) compared to those of the standard Classic (left).

To discover how difficult it was and, indeed, whether it was worth doing, we took a standard Mac Classic and fitted it with two Harris accelerators – the Performer 2 (a 16MHz 68000 to replace the 8MHz standard chip) and the Performer Pro (a 68030 chip).

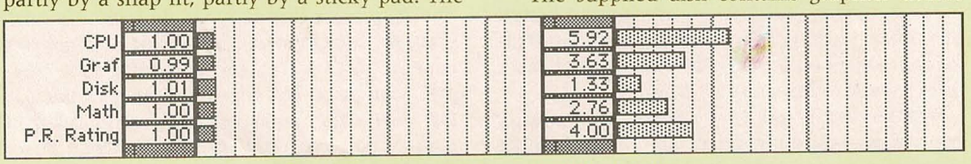
Danger zone

If you've never fitted an upgrade before you need strong fingers, strong nerves and possibly some fairly strong headache pills. In fact, you really shouldn't do this at home. Most dealers who sell accelerators will also fit them for you – and remember, they've done it before. The design of Classics makes them easy to damage, and the Cathode Ray Tube, which is only inches away from your fingers while you're working, can carry potentially lethal charges even after the machine has been switched off. Don't take any risks – a faster Mac isn't really something to die for.

You need to install additional software with both Harris boards (as you do with the other accelerators tested here). The software takes the form of a Control Panel document with various settings to control the new hardware.

Both boards met the maker's claims, both during the benchmark tests and while using real applications. Given the obstinate design of the Classic, fitting the boards was as painless as you could realistically expect, but we did have one problem. The boards are held in place partly by a snap fit, partly by a sticky pad. The sticky pad was missing from one of the boards, and this made it an absolute pig to get up and running. The fit is crucial. The Classic's problem is that it has a motherboard that was never designed to have anything clipped to it – and nothing makes that more obvious than spending three hours heaving your motherboard in and out while you try to get the little sod to boot up.

The other Harris board, though, still had its sticky pad, and that worked first time. Significant, that. All Harris boards are shipped with these sticky pads, and you shouldn't expect the problems we had.



Here are the results of the Performer Pro (right) compared to the standard Classic (left).

Performer 2

Harris's Performer 2 substitutes a 16MHz 68000 for the standard 8MHz unit, so you'd expect it to run twice as fast – which it does. But first, the installation...

Accelerators need software to modify your Mac's System before they can run. The instructions with the Performer 2 tell you how to do it. Twice. There are instructions in the manual, and revised instructions on a separate leaflet inserted in the box. Not the best way to inspire confidence! Nevertheless, installation went without a hitch.

The supplied disk contains graphics demos

up your monitor's display with a graphics card, and speed up your networking capabilities with an Ethernet card. But the sort of speed increases we're looking at here are based on upgrades to your machine's Central Processing Unit (CPU). The accelerators we're looking at all replace your Mac's built-in CPU with either a faster version of the same chip (a double-speed 68000 for a Mac Classic, for example) or the next chip up in the Motorola series (a 68040 CPU for the 68030-based IIci, say).

Instead of just tarting up one aspect of your Mac's performance, these accelerators will make it do everything quicker. Sometimes dramatically quicker.

What won't they do?

Although these accelerators will make your Mac quicker all round, there are certain things they won't do. For example, if you've got a mono Mac, it's going to stay mono. If you're lumbered with a measly 2Mb of RAM in your Classic, 2Mb it's going to stay. Fed up with waiting hours to load stuff off floppies? Well, your drive's not going to spin any faster just because your motherboard's suddenly running at ten times the speed.

There's one more thing accelerators won't do. They (or their driver software) won't

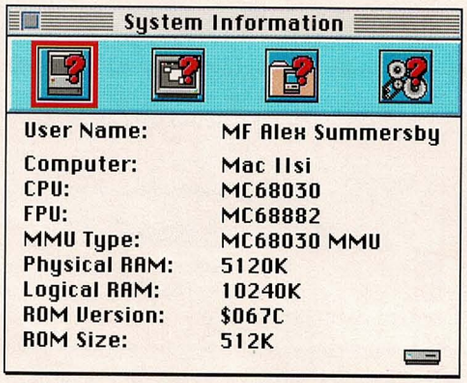
THE BENCHMARK TEST

Harris thoughtfully provides the hardware testing program *Speedometer* with both of its Classic boards to enable buyers to check the speed increases of their accelerated Macs. We used *Speedometer* to test all the accelerators detailed here.

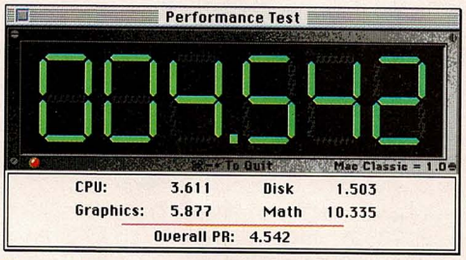
This software runs exhaustive tests on just about every aspect of your hardware, but these tests break down into four main areas: CPU (general processor speed), graphics, disk and maths. The results are expressed as factors – a Mac Classic is the baseline performance figure, with a value of 1.

We've already explained that accelerators won't make your floppy drives run any faster (see 'What won't they do?', page 36), but they can improve the performance of your hard drive – by 10-20%, in fact. The overall performance ratings quoted in 'The results' boxes include the disk performance figure, and since this rarely improves much, it has the effect of depressing the results. To get a truer indication of the speed increases achieved, eliminate the disk speed measurement from the comparisons.

Benchmark tests enable you to measure speed scientifically and under controlled conditions. They don't tell you what's going to happen in the real world, with real software, though, which is why we set up three less scientific, but more realistic software tests (see the 'The Real-life test' box on page 40 for more details). These measured speed when running a word processor, spreadsheet and graphics package.



Speedometer, which was on MACFORMAT 18's cover disk, is a shareware program that can measure just about every aspect of your Mac's performance in the minutest detail.



This neat little set of tests checks out your Mac's performance in four principal areas and then delivers a final speed rating – relative to a the benchmark of a humble Classic.

necessarily be 100%, hand-on-heart compatible with every single piece of software you might have installed. Major applications aren't a problem – it's those clever little Extensions and shareware widgets that cause the trouble.

You shouldn't let compatibility worries affect your decision to buy an accelerator, but you should bear software/hardware conflicts in mind as a faint possibility.

Are they easy to fit?

Ah! Well, to fit an accelerator, you've actually got to take your machine apart and start fiddling around with printed circuit boards, and software installation, and possible Extension clashes, and modifications to your System, and warranty invalidations, and possible electrocution... and what if it doesn't work when you've finished it?

Stop panicking! With the exception of the for a visual comparison, and the *Speedometer* hardware-testing program we used for all the accelerators on test. With the Performer 2's high-speed RAM cache switched on, the Classic ran at twice the normal speed, on average. This figure is an average of the results of tests conducted to determine CPU speed, graphics, disk handling and maths functions. With the cache switched off, the chip was just a couple of percent faster. Some games became unplayable with the Mac running twice as fast, though, so you may need this cache-toggling feature periodically.

Performer Pro

The installation procedure for this Harris card is the same as for the Performer 2. First you move all non-standard Extensions and Control Panels, then you copy the special Control Panel to your System Folder. Then you unplug the Macintosh, open it up, remove the motherboard and plug in the card.

Again, the Performer Pro does everything the makers claim. With its high-speed cache enabled, the accelerated Mac runs at up to ten times its normal speed. If your games now run too fast to play, or you can't type fast enough to keep up, you can reduce this to about six times normal speed by switching off the cache.

THE RESULTS

To interpret these results, and discover how the tests were conducted, see 'The benchmark test' and 'The real-life test' boxes.

Real-life test results:	Classic	With Performer 2	With Performer Pro
Spreadsheet	17 sec	8 sec	6 sec
Text scroll	50 sec	29 sec	21 sec
Graphics scroll	N/A	N/A	N/A

(Our graphics software would not run on the 68000-based machines. A definite sign of the times!)

Benchmark test results (based on a standard Classic receiving a rating of 1):			
CPU	0.997	2.319	5.924
Graphics	0.992	1.852	3.633
Disk	1.015	1.171	1.333
Maths	0.999	1.831	2.761
(PR)	0.999	1.900	4.002

VERDICT

STOP PRESS

Just before we went to press we discovered that Harris is no longer trading. We'll bring you full details of where these products are available as soon as we have them.

Both the Harris cards have slots for maths co-processors, and neither requires extra RAM – they use the memory already fitted to the motherboard. This is a bit of a shame, actually, because if there's one thing the Classic needs more than a faster chip, it's more RAM. The standard machine can only go up to 4Mb, and neither accelerator offers the chance to fit more.

If it wasn't for that, the choice would be clear. Given that the Pro card is two to three times faster than the Performer 2, that's the one to go for. But remember: while the standard Mac Classic is cute, by today's standards it's a museum-piece – and a slow CPU is only one of its problems. If you want to perk up your Classic and you're *sure* that a faster chip is all you need, buy the Performer Pro. Otherwise, grit your teeth, sell your Classic at a heartbreaking loss and buy a bigger Mac.

Upgrading a Mac LC

Mac Classic, all Macintoshes are desperately easy to take apart. All you have to do is disconnect the monitor, lift it off, remove the 'security screw' from the back panel (if there is one) and the lid of the system unit simply unclips. And there, underneath... is a big space. This is when you remember how much you paid for your Mac, and wonder who's kidding whom. You'll see a power supply, a hard drive, a floppy drive, and a motherboard with some sockets on it. In fact, you'll see exactly what the instructions tell you you'll see. And the instructions will almost certainly have an exhaustive description of how and where to plug in the accelerator, along with a diagram with an arrow in case you're not sure. Most connectors will only fit the 'right' way anyway.

All in all, you'll probably be OK. You should take a few precautions, though. First, make sure the Mac is off, and second, make sure you touch some substantial metal object (a radiator or tap will do nicely) to discharge any static electricity from your body before you touch anything with chips on it. And do read the instructions carefully.

How to customise

Fitting an accelerator is a piece of cake in a 'modular' Mac – in other words, anything other than a Classic. The lids come off easily and all the cards tested came with clear instructions as to where the card should be plugged in and how to install the necessary software subsequently. However, don't forget that if something does go wrong and your Mac is damaged, it won't be covered by the warranty. And don't forget that chips are sensitive to static discharges and the human body is rather good at generating them. So remember to wear the earthing wrist-straps (if provided) or touch something heavy and metallic before handling the cards.

1 Take a look at the back of your LC's system unit. In the middle of the back plate just below the top there may be a screw that needs removing.

2 Now press with your thumbs on the tops of the sprung plastic tabs holding the lid shut and prise them open with your fingertips. The lid should lift off easily.

Are they a cheap option?

List all the things wrong with your Mac, then compare this list with the things an accelerator will fix. If it all comes down to speed, an accelerator is a whole lot cheaper than a new Mac. But if you want to set up a CD-ROM authoring studio and all you have is a Mac Classic, an accelerator is a waste of money. You will want 24-bit colour, a CD-ROM drive, a wheelbarrow full of RAM, a new monitor, NuBus slots... no, just forget it.

Sometimes a new machine is the only sensible option, and you have to be pretty ruthless about your decision. But if it's simply a question of outright speed – you're just tired of waiting for your current machine to grind through this month's budget forecasts, or sick of collecting cobwebs while it scrolls through your latest literary masterpiece, then an accelerator will dramatically improve your quality of life (though maybe not the masterpiece).

The cards we've tested

Isn't it great that every Mac has the same Desktop, the same basic System software, the same way of handling disks, files and directories... and a different set of expansion slots? Wouldn't it be nice if one accelerator card fitted all Macs? Dream on! As a rule, one accelerator fits one Macintosh. There are exceptions – DayStar, for While not as far gone as the Classic in terms of sluggishness, the LC still needs an accelerator. Let's face it, the only other place you'll find a 68020 nowadays is in the British Museum. Thankfully, the LC opens up with fabulous ease. Unplug and lift off the monitor, then find the two plastic catches along the back edge of the CPU box. Lever these outwards and the lid will simply lift off. If it doesn't, that's because your machine has a small 'security screw' between the catches. This can be taken out with an ordinary Phillips screwdriver. As you look down from the front of the machine, the LC's Processor Direct Slot (PDS) runs vertically down the left-hand side of the motherboard, near the back. You can't miss it. It's the only thing the accelerator you're holding in your hand will plug into. And it will only plug in one way, so you can't get that wrong either.

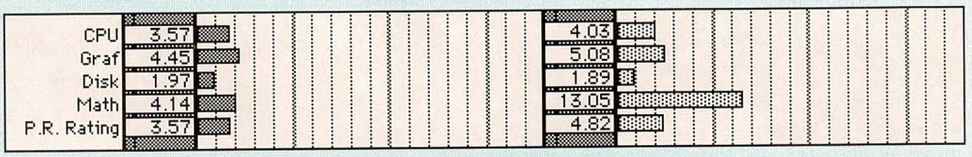
Software installation is as straightforward as it is with the Classic. More so, actually, because you can boot up with the board inserted without the software. Once the board's in, you can copy across its Control Panel, set it up if necessary, then restart.

Intensifier

This board, from Total Systems, is strange. The installation was the same as for the other LC boards – it's just the test results that left us completely baffled...

Our board was configured with a 68030 CPU and a companion 68882 maths co-processor – a nice meaty combination. The specs are interesting, too. Maths co-processors dramatically speed up maths-intensive work, but only if the software looks for them. Some software uses maths routines, but doesn't look for a co-processor. Instead, the maths is handled by the *Standard Apple Numeric Environment (SANE)* software. *SANE* isn't especially quick, and certainly isn't in the same league as a dedicated co-processor. What the Intensifier board and software do is distinctly clever. It can divert maths calculations that would normally be handled by *SANE* into its own 68882 co-processor, thereby making them a lot faster. That's the theory, at any rate.

In practice, our board didn't quite behave that way. We got the big general speed increase you'd expect from the 68030 chip, but our spreadsheet test actually ran *slower* than on a plain, unaccelerated LC. Yes, we did switch the *SANE* option on and off in the Control Panel and it didn't make any difference. Odd!

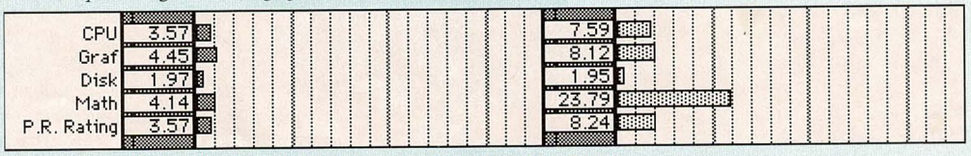


Here are the results from the Intensifier (right) compared to the standard LC (left).

Pro33 LC

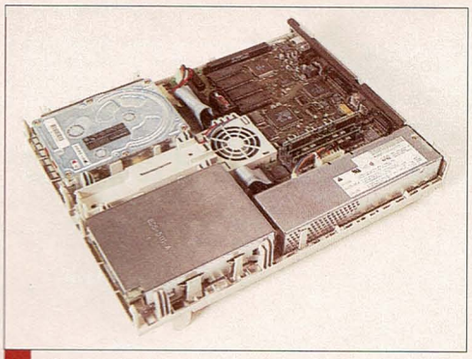
Formac Elektronik's Pro33 replaces the LC's standard 68020 with a 33MHz 68030. You also get a maths co-processor that its makers claim works up to nine times faster than a standard LC with software that uses a co-pro. Unlike the Intensifier board, though, there's no special trickery involved to divert maths instructions from *SANE*.

The Pro33 gave our LC a massive performance boost. So much so that we didn't really want to take it out again. But we did. It ran without any problems, but it did get a bit hot. Not hot enough to boil a cup of water, but hot

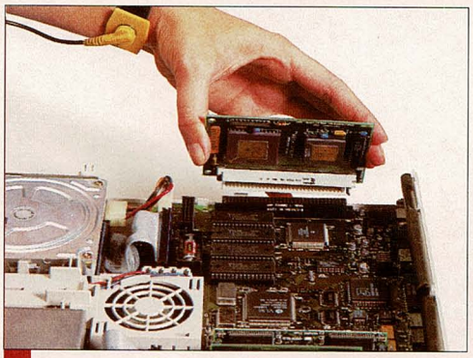


Here are the results from the Pro33 LC (right) compared to the standard LC (left).

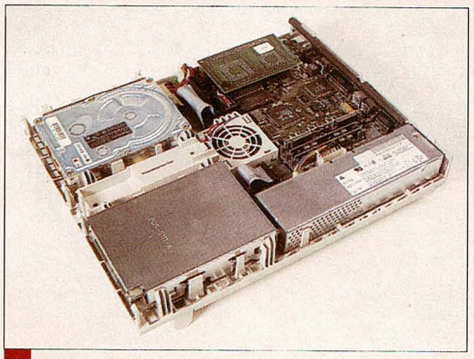
YOUR LC WITH GO-FASTER STRIPES



3 With the lid off you can now see what's what. The front of the machine is to the left in this picture, and the PDS slot is in the top corner seen from this angle.



4 There is only one way these cards will fit, so you won't get it wrong. Carefully line up the pins on the connectors before levelling the card and pressing it home.



5 And this is the card fitted and ready to run! Note that the LC's slimline casing means cards lie horizontally over the motherboard (in Mac II models they fit vertically).

example, sells a 'Universal Powercache' that plugs into several models with the appropriate adapter – but for the most part, accelerator cards have to be made for specific models.

Which is why we didn't get together a whole bunch of accelerators and compare them – they are different products that are designed for different machines.

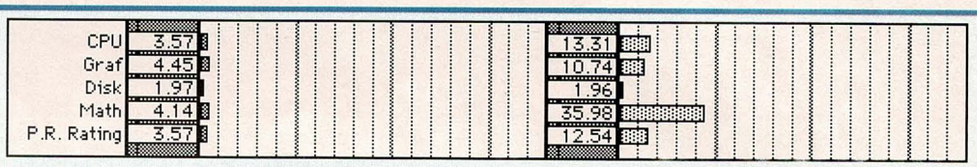
Instead, we picked three typical Mac models and checked out accelerators for each. The three models we chose were the 68000-based Classic (if ever a machine needed an accelerator, this is it), the 68020-based LC (and it seemed so quick when we bought it!) and the 68030-based IIci (which suddenly looked very pedestrian when the '040 machines came out).

What do you get?

Of course, with each of the cards here you get a faster CPU – either a faster version of the standard unit, or a bigger, better chip altogether. What you also get is a high-speed RAM cache. A what? Well, your Mac's built-in RAM is no faster than it needs to be. This keeps the cost down, but means that faster CPUs won't give you much of a speed increase on their own. A faster CPU needs to move stuff in out of memory faster, and that's what a high-speed RAM cache achieves. It's a neat solution the manufacturers use to give you the benefits of a faster CPU while still using your existing RAM.

And there are other ways of speeding up your Mac. If you use spreadsheets or CAD packages, your Mac's having to handle some pretty intensive maths processing – and this enough to make a passer-by howl when we held their hand near it.

This is one thing to note about accelerators: they are third-party products, and won't always be as slick and neat as proper Apple gear. They usually fit well enough, but in this case something odd was clearly happening to our LC's internal air circulation. Having said that, it worked without a hitch both during and after the tests. Maybe that passer-by was just being a bit wimpish.

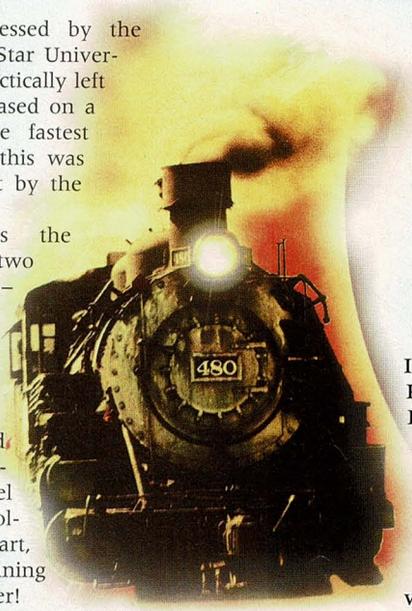


Here are the results from the PowerCache (right) compared to the standard LC (left).

Universal PowerCache

If we were impressed by the Pro33 LC, the DayStar Universal PowerCache practically left us salivating. It's based on a 50MHz 68030, the fastest CPU on test, and this was certainly borne out by the outstanding results.

Installation was the same as the other two LC accelerators – power down the Mac, lift off the lid, plug in the accelerator, reassemble and restart your Mac. Next you need to copy the PowerCache Control Panel into the System Folder. When you restart, your LC will be running up to five times faster!



THE RESULTS

To interpret these results, and discover how the tests were conducted, see 'The benchmark test' and 'The real-life test' boxes.

Real-life test results:	LC	With Intensifier	With Pro33	With PowerC
Spreadsheet	10 sec	13 sec	4 sec	3 sec
Text scroll	36 sec	30 sec	17 sec	15 sec
Graphics scroll	98 sec	45 sec	21 sec	15 sec

Benchmark test results (based on a standard Classic receiving a rating of 1):				
CPU	3.567	4.032	7.587	13.307
Graphics	4.455	5.078	8.123	10.744
Disk	1.965	1.892	1.945	1.962
Maths	4.135	13.053	23.788	35.980
PR	3.570	4.820	8.240	12.537

VERDICT

Intensifier
Price: 312.55
For more details contact AM Micros on 0392 426473

Pro33
Price: 278.48
For more details contact Formac Elektronik on 081 533 4040.

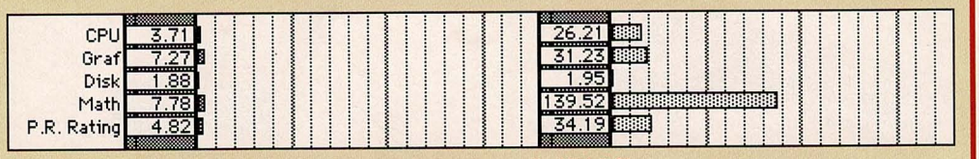
PowerCache
Price: 139.83
For more details contact Ingram Micros on 0908 260160.

A pretty even spread of results here, with the Intensifier board being the least impressive, while the DayStar PowerCache gave the most spectacular increase in performance. Once you've installed and run the PowerCache in your LC, you really won't want to take it out again. We didn't.

Upgrading a Mac IIci

The IIci is as easy to open up as the LC. Once you've removed any 'security screw' on the back panel, the lid simply lifts off the system unit. Unlike the LC, the IIci has NuBus slots as well as a PDS, but the instructions will leave you in no doubt as to which slot you use.

We tested one card in our IIci, just to give you an example of the sort of speed increases you can expect, and to check that the installation was every bit as trouble free as with the LC. The IIci is no slouch, but the Turbo 040 card made it look like one!



Here are the results from the Turbo 040 (right) compared to the standard IIci (left).

Turbo 040

DayStar's Turbo 040 is based – not surprisingly – on the Motorola 68040. This chip is not only much faster than the 68030, it also has its own built-in floating point unit. DayStar's QuadControl software can intercept any maths heading for the Mac's *SANE* system and re-route it to the much faster 68040. This speeds up CAD, 3D-rendering, spreadsheets and other maths-intensive software.

This was borne out by the real-word software tests. Our *Excel* document recalculated an amazing eight times faster, while both the graphics and text scrolling tests produced results that were three times quicker than the standard IIci. Who needs a Quadra?

The results

To interpret these results, and discover how the tests were conducted, see 'The benchmark test' and 'The real-life test' boxes.

Real-life test results:	IIci	With Turbo 040
Spreadsheet	8 sec	1 sec
Text scroll	39 sec	14 sec
Graphics scroll	30 sec	11 sec

Benchmark test results (based on a standard Classic receiving a rating of 1):		
CPU	3.712	26.212
Graphics	7.267	31.226
Disk	1.885	1.950
Maths	7.776	139.520
PR	4.819	34.194

Verdict

DayStar Turbo 040
Price: £1052.80
For more details contact Merisel on 081 490 9000.

Do you get diminishing returns when you accelerate an already quick Macintosh? No! The Turbo 040 made a spectacular difference to our IIci – in fact this was the card that produced the biggest speed increase of all those reviewed. The moral of the story is that your Mac is never so quick you can't make it quicker! (Watch for the PowerMac accelerators in MACFORMAT soon!)

will happen a lot faster if your Mac has a maths co-processor fitted. Some models already have them; many don't. Either way, most accelerator cards either have a maths co-processor built in or offer a slot to fit one (available as an option).

Maths co-processors are great – providing you are running software that 'looks' for them. Otherwise, the maths side of things is handled by the Macintosh's own built-in *SANE (Standard Apple Numeric Environment)* software. Or is it? Two of the cards on test rather sneakily divert maths from *SANE* and point it towards their on-board co-processors. Smart.

Most of all, though, what you get is a Mac that's been given a new and spectacular turn of speed – cheaply and easily. Maybe your faithful plastic pal will be good for a few more years after all...?

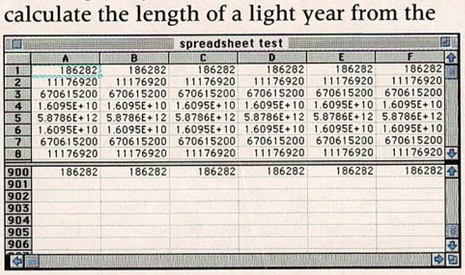
Rod Lawton

The real-life test

Benchmark software like *Speedometer* is one thing, but how do these accelerators stack up when using real-life applications? We ran some tests based on everyday software. These mostly confirm what the benchmark tests say, but also throw up a few surprises here and there.

The spreadsheet test

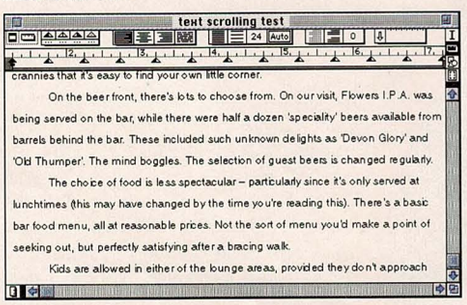
All the machines were tested for speed in handling a big spreadsheet. The task was to calculate the length of a light year from the speed of light, then work back down to the speed of light – 600 times in a row. The final result was the average of two or more runs.



This giant spreadsheet gave the standard Classic a bit of trouble, but it was child's play on the accelerated IIci.

Text scrolling test

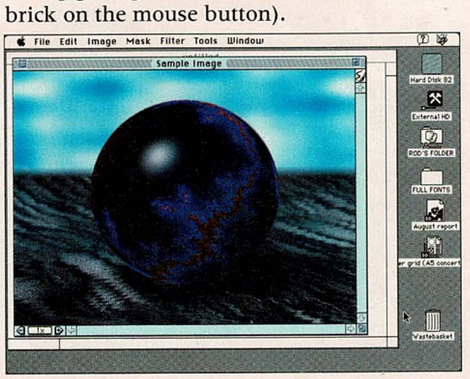
We set up an 8,000-word *Nisus* document and then we measured the time that it took to scroll through the document by keeping the mouse button down over the downward scroll arrow.


text scrolling test
crannies that it's easy to find your own little corner.
On the beer front, there's lots to choose from. On our visit, Flowers I.P.A. was being served on the bar, while there were half a dozen 'speciality' beers available from barrels behind the bar. These included such unknown delights as 'Devon Glory' and 'Old Thumper'. The mind boggles. The selection of guest beers is changed regularly.
The choice of food is less spectacular – particularly since it's only served at lunchtimes (this may have changed by the time you're reading this). There's a basic bar food menu, all at reasonable prices. Not the sort of menu you'd make a point of seeking out, but perfectly satisfying after a bracing walk.
Kids are allowed in either of the lounge areas, provided they don't approach

How long does it take to scroll through an 8,000-word *Nisus* document? This is where we find out!

Graphics scrolling test

A sample image provided by *ColorIt!* was viewed at eight times the normal magnification. Then we measured the time taken to scroll from the top-left to the top-right corner. On a low-end Mac this involves positively geological timescales (leave a house-brick on the mouse button).



Bitmapped images can be slow to move around. We found out exactly how slow with this *ColorIt!* sample image.

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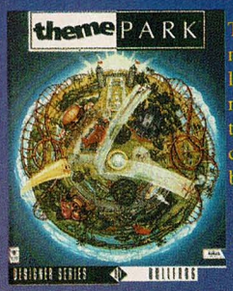

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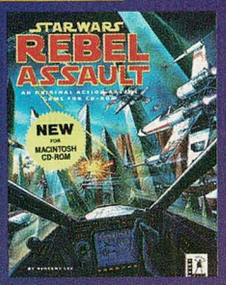

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All Prices Include VAT

How to order: Cheques made payable to Emerald Creative. Allow At Least 5 Working Days to Clear.
Credit Card: Visa, Mastercard, Access, Delta. We bill your card when we despatch the order, not before.
Postage & Packing: Charges within the UK are £3.50. Recorded post is an extra £0.55p. Next day courier is £4.95 inc. VAT within the UK mainland. Please ask for overseas pricing.
Pricing : All pricing includes VAT but not carriage. We reserve the right to change prices - you will be informed of any change when you order.
Problems: Faulty product will be replaced or repaired if returned within 30 days of purchase. We will refund if we can't repair the goods. E&OE

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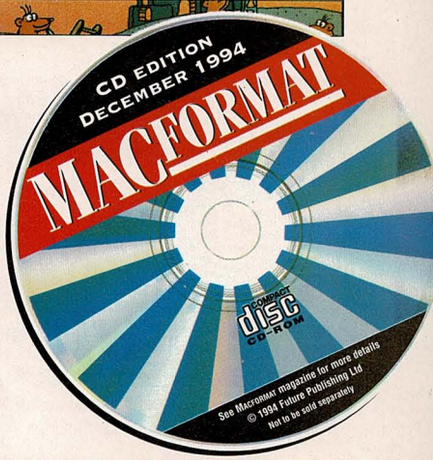
54 Wandle Bank
London SW19 1DW



Electric education!

On this month's cover CD: demos of all seven *Brøderbund Living Books*, plus *BodyMapper* and *RedShift*!

Don't be a dunce! Get smart with the MACFORMAT guide to the best of the latest education software. Phil Moore plays teacher...

There are so many educational titles available for the Mac that deciding which package to buy can be a truly tortuous affair. First you have to consider who the program is aimed at: in other words, what age group and which nationality. You also need to consider the program's intent – is it a general purpose educational tool, or does it support a particular curriculum? Is it informative? Entertaining? Easy to use? Does it represent good value for money?

That's where we come in. Over the next few pages we'll be peeking behind the packaging of the educational titles currently competing for shelf space to bring you the ultimate MACFORMAT buyer's guide.

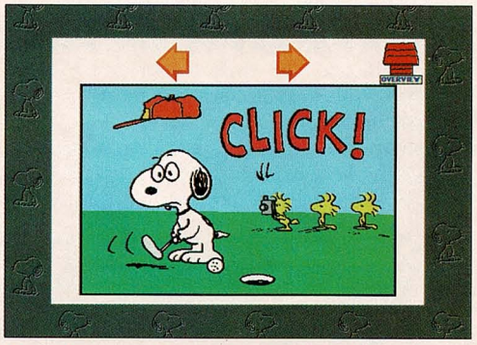
SNOOPY

Primary school

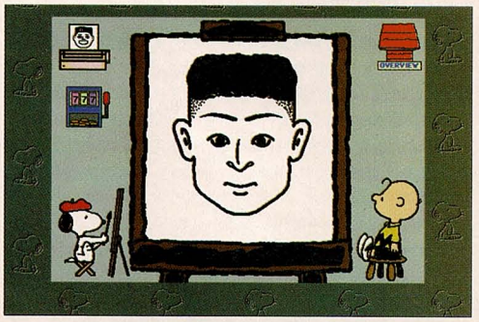
Snoopy is a stark contrast to the *Peanuts* program that's currently doing the rounds. Basically it's much, much better. *Peanuts* is overtly American – one of the tasks involves identifying and arranging the US states. And it isn't actually very good. Its 'Colouring Book' leaves much to be desired, and the games in the 'Fun' section offer little to hold the interest of even the most immature minds.

Snoopy is in a different league and is well suited to children in the UK. The five activities are more considered and open-ended, and it's a fair bet that young children will return to this program many times.

The 'Maths' games (which include darts, and *Peanuts'* characters riding on buses and dividing up cookies) provide a range of activities based on addition, subtraction and division. All include good visual clues. There's also a Maths game for one or two players. The five comic strips, which are read with plenty of expression, have lots of 'hot spots'. If you click on these, amusing things happen. It's just a shame that you can't record your own voice reading the strip, or print out the screens so that they can be coloured in by hand.



A frame from one of *Snoopy's* cartoon strips. Hot spots dotted throughout the strips enable you to add funny bits.



This is a self-portrait created in the 'Face Maker' section of the program. Well, even Van Gogh had to start somewhere...

The 'Music' game is very good: you choose from rock, reggae, jazz, rave or country and assemble a tune from the 'licks and riffs' provided. The score for the tunes looks a little like musical notation, which helps to prepare children for the type of music programs they're likely to use in schools.

The 'Face Maker' is good too. Here children can select different features to put together, or draw their own faces from scratch. When they've finished they can (for once) print out what they've done – a definite plus. All in all, this is a good program for young children.

■ **Price: £42.30.**
Requires: System 6.0.7 or higher, 4Mb of RAM, 14Mb of hard disk space.
For more details contact Macademic on 071 630 6844.

MACFORMAT RATING **92%**

PRIMARY-SCHOOL CHILDREN

The bulk of the software advertised for this age group is to do with the basic skills of reading, writing and arithmetic. It's often difficult to know from the advertising blurb which packages are worth buying, especially because most claim to teach children everything they need to know – an impossible task for any program.

So how do you decide which titles to buy? Well, here are a few pointers worth bearing in mind...

■ Software for this age group should be fun – if children don't enjoy using it, they won't come back to it. You know what makes your children laugh, or keeps their attention. Try to keep that in mind when making buying decisions.

■ Beware of products that come from the US – often they haven't been adapted for a UK audience and contain references that mean very little to British kids.

■ Children should be in control of the software, not the other way round. Many programs not only control what happens on screen, but also what children are allowed to do and the words they are allowed to use. The best software, by and large, enables children to be in control.

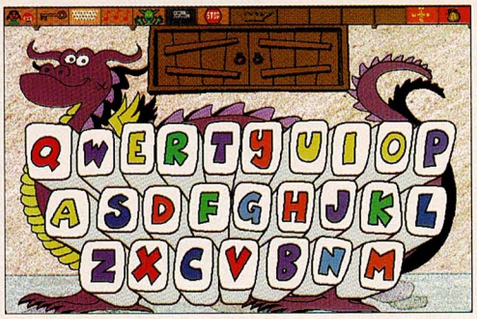
■ Try to get programs that encourage kids to continue their work away from the Mac. Effective learning occurs when children work with a variety of media – they soon get bored watching a computer screen.

Don't be afraid to give children access to word processors, databases, DTP programs and spreadsheets. These are likely to be of great use not only for their homework but, increasingly, for activities of their own.

KID KEYS

Primary school

This program makes a huge assumption: that you want your children to learn to touch-type. Whether this is really a necessary skill for the program's intended audience, four to eight year olds, is a moot point. It's one that is frequently argued in educational circles. But all sides agree that some form of keyboard familiarity is



Now that's what I call a monster keyboard! But where's the [return] key and all the rest? On his other side? His belly?

useful at this age, such as knowing roughly where the keys are and what they do. For instance, it's useful for all children who come anywhere near keyboards to realise that the [return] key is often used to confirm a choice.

Kid Keys could prove helpful in this process of familiarisation. Each of the three modules enables children to experiment or follow prompts. 'The Magic Keyboard' offers children the chance to explore the keyboard in a fun way (most will start with the letters of their name). Each time they press the keys they receive a reward, like a certain sound or word appearing on screen.

In the 'Dragon Tunes' module, each key produces a note, enabling children to make up their own melodies. There's also a prompted activity that invites them to play the Alphabet Song, which is still sung in many schools. Children are also encouraged to type the letters that form tunes such as 'Alouette', 'Jingle Bells' and 'Old MacDonald'. But beware: some of these songs will be more familiar to American children than to British ones.

The third module is the one which aims to teach youngsters how to touch-type. The skill is taught within the context of a game, where certain letters and letter combinations enable monsters to escape from a castle. The correct finger positions are shown, but of course the program can't check if students are using the right fingers on the right keys.

Provided that children are allowed to play freely with the program, and aren't expected to learn how to touch-type, *Kid Keys* could be a good way of increasing their knowledge of both the alphabet and the letter keys of a standard keyboard. But it's a little bizarre that a program that claims to teach keyboard skills doesn't touch upon the use of the space bar, the [return] key, or any of the other function keys.

■ **Price: £34.95.**
Requires: System 6.0.7 or higher, 2Mb of RAM for mono Macs (4Mb for colour ones), and 9Mb of hard disk space.
For more details contact Ablac Learning Works on 01626 332233.

MACFORMAT RATING 85%

Primary school

In modern storybooks, the pictures not only convey the main elements of the story, but also provide prompts that invite parents and children to discuss the story's characters, events and ideas. The story becomes far more than just the bare words.

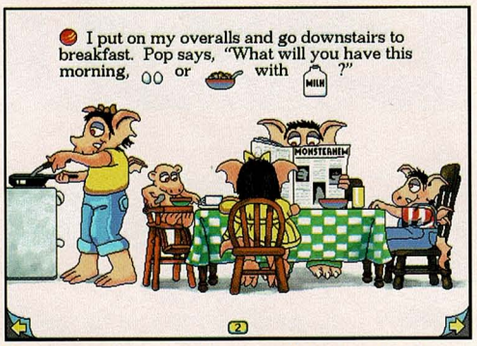
This is a crucial stage in learning to read and in learning how authors speak to their readers. The *Living Books* series transfers just this kind of interactivity to the Mac: the words are read, while animated versions of the narrative's events appear on screen.

In addition, other things happen when you point and click on different parts of the screen – things that aren't always described in the text. This kind of hunt-and-find approach has been popular with printed books – like the *Spot* series – and it should entertain kids on screen too.

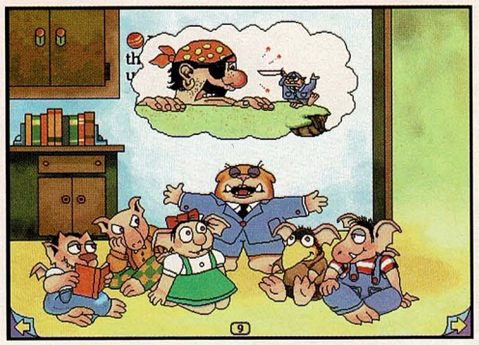
These programs illustrate the fact that reading is not a passive activity – they cry out for children to play with the words and pictures to discover the hidden parts of the story. Unfortunately, unlike printed books where the child's and parent's imaginations can always create new themes and sub-plots, once children have clicked everywhere on the *Living Books*' screens, nothing new can happen. A facility enabling children to record their own versions of the story would overcome this limitation.

All the *Living Books* titles come with a printed copy of the book in question. Given that many parents aren't confident about the shared reading of an electronic text, it's a good idea to start by reading the book together before moving on to the CD-ROM. Discussing the relative merits

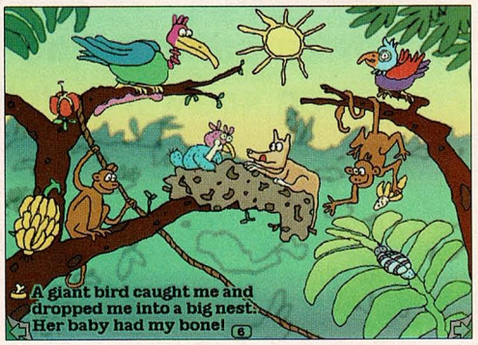
A-ha! So that's what finger you're supposed to use for typing! I always use the one next to my thumb...



This is a page from *Little Monster at School* – or, in this particular case, at home having breakfast.



Yally tells a story about editors and reviewers in *Little Monster at School*, using words, pictures and semaphore.

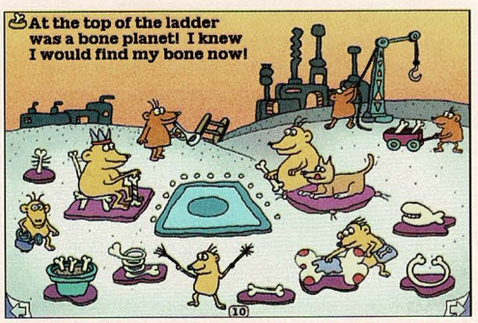


It really is a dog's life, apparently. This screenshot is taken from *Ruff's Bone.* in the *Living Books* series.

SECONDARY-SCHOOL CHILDREN

The type of software children find useful changes as they go through secondary school, with a developing emphasis on reference material rather than programs that guide them through specific activities. Increasingly, generic software figures on their wish list – particularly now Christmas is closing fast – while word processors, DTP programs and databases become essential tools for doing homework.

At the same time, children also tend to become more sophisticated in their approach to computer activity. They question what's on screen rather than just accepting it because it's on a computer. They also begin to understand some of the processes that have culminated in the software they're using. For these reasons, it's probably not wise to buy any software for older children without discussing it with them first.



Every dog has his day... Ruff's quest for his lost bone takes an upturn in this shot from the excellent *Ruff's Bone.*

of the printed and electronic versions of the story with your children can prove very illuminating and could well broaden your children's understanding of reading as a whole.

■ *Living Books* **prices:**

Arthur's Birthday	**£41.11.**
Arthur's Teacher Trouble	**£30.14.**
Just Grandma and Me	**£25.68.**
Little Monster at School	**£42.30.**
Ruff's Bone	**£42.30.**
The New Kid on the Block	**£30.14.**
The Tortoise and the Hare	**£30.14.**

Requires: System 6.0.7, 4Mb of RAM, 256 colour monitor and a CD-ROM drive.
For more details contact Macademic on 071 630 6844.

MACFORMAT RATING 95%

KID PIX 2 & KID PIX FUN PACK

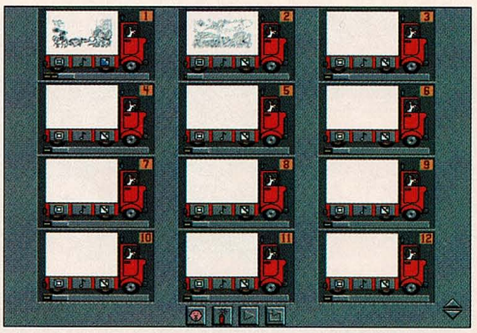
Primary and secondary school

Kid Pix 2 is a re-packaged version of both *Kid Pix* and *Kid Pix Companion*, which were previously sold separately. It is, quite simply, wonderful. And it richly deserves the many awards it has received.

On one level, this is a drawing-cum-painting package. You can either start with a blank screen where you can draw your own picture, or with one of the many colour-it-in drawings. The package includes the sort of tools you'd expect in any drawing program: pens, brushes, aerosol cans and so on. In addition, *Kid Pix* provides a range of 330 different templates of dinosaurs, people, cars, buildings, etc. These templates can be placed anywhere on a picture, re-sized and customised as you wish.

There are so many levels to this program that a short review like this can't do it justice. There's the 'Wacky TV' module that enables you to incorporate any *QuickTime* movie into your pictures. The 'Slide Show' module enables you to create a slide-show of pictures or movies you've created, complete with sound effects and transitions between the presentation elements. There's also an electric mixer that transforms something you've done in weird and wonderful ways.

The joy of this program is primarily that it



This is how you create a slide-show. You can add sounds and transitions with the keys beneath the lorry.

was designed with children in mind. The accent is on fun, and it encourages children to experiment with words, sounds and images. In short, it's a 'must have' program that acts as a fun introduction to the world of multimedia.

The *Fun Pack* is a collection of additional pictures and stamps, covering such topics as 'Home Sweet Home', 'Celebrations around the World' and 'Thrills and Chills'. If you've got *Kid Pix* already, then this would definitely be a worthwhile addition.

■ *Kid Pix 2* **costs £52.86.**
Kid Pix Fun Pack **costs £29.36.**
Requires: System 6.0.7 or higher, 2Mb of RAM for mono Macs (4Mb for colour). Note: you need 4Mb for QuickTime features, and 10Mb of hard disk space.
For more details contact Macademic on 071 630 6844.

MACFORMAT RATING 95%

STORY BOOK WEAVER

Primary and secondary school

Story Book Weaver is designed to provide your children with tools to create a multimedia story. The result won't be as polished as a *Living Books* production, but it will be a story that your child has personally conceived, designed and put together.

The program provides a library of images, scenes, sounds, songs and screen borders. You simply put them all together and write the words of the story. Having done that, you can print it out or save it to disk. You can then send it off to Granny, along with the reader program, so she can see the results. Alternatively, stories can be exchanged with other children via e-Mail. One interesting approach might be to ask your child to recreate a favourite story.

Of course, there are some limitations to the program. You can't add your own images or sounds, and your children won't be able to add their own voice-overs. Nevertheless, the look of the final version is superior to anything you'd achieve with virtually any other program.

For more details see MACFORMAT 13.

■ **Price: £25.67.**
Requires: System 6.0.7 or higher, 1Mb of RAM for mono Macs and 2Mb for colour (4Mb for System 7), plus 10Mb of hard disk space.
For more details contact Macademic on 071 630 6844.

MACFORMAT RATING 92%

EAGLE EYE MYSTERIES & THE LONDON MYSTERIES

Primary and secondary school

In *Eagle Eye Mysteries* you're cast in the role of a helper to Jake or Jennifer Eagle, two amateur detectives with an uncanny knack of finding mysteries to solve (fortunately, the OJ Simpson case isn't one of them). You investigate the crime scenes, look at clues and talk to suspects before reaching a conclusion and identifying the culprit – yeah, I know what you're thinking, but it's actually better than it sounds.

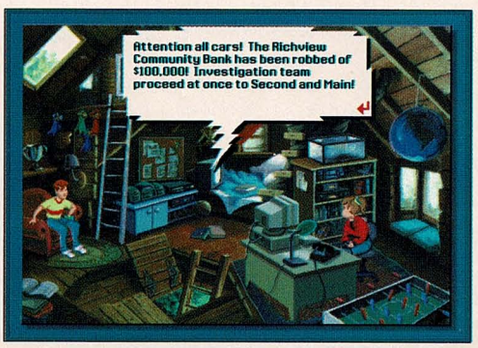
The original program contains three books of mysteries, each with a number of cases. The cases become harder to solve in the second and third books – and while the crimes are the same, the clues and culprits will be different. *The London Mysteries* are all based in the UK. Perhaps the most mysterious thing here is the American view of life in Britain.

The real educational value of these programs is in the variety of material that has to be digested and the deductive process that leads to the correct conclusion. Having reached your decision about the identity of the criminal, you are then asked which five clues have helped

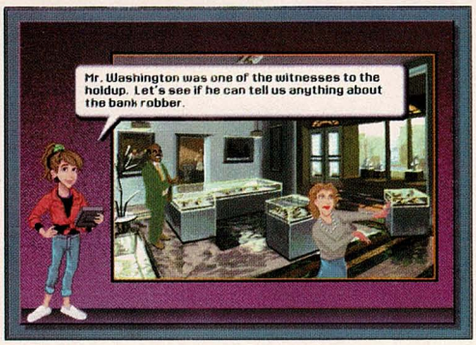
This took exactly ten minutes with a pre-drawn picture. Now you know why I didn't take up interior decorating as a career.

Untitled
They walked all day until they came to a brook. They sat and rested while the monster read the latest issue of MacFormat.
OK
Page 2

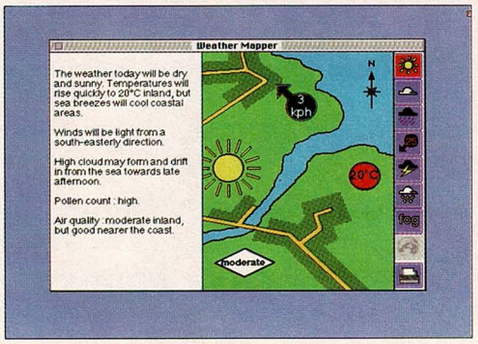
With *Story Book Weaver* any child or MACFORMAT reviewer can write and illustrate a story for Granny to cherish.


Attention all cars! The Richview Community Bank has been robbed of $100,000! Investigation team proceed at once to Second and Main!

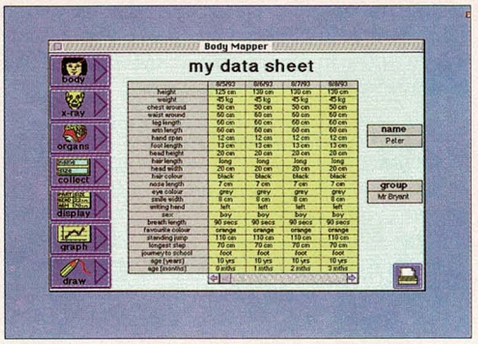
This looks like a job for... one of the Eagle twins! Pick your character, put your Sherlock Holmes head on and get going.



OK, Washington, start talking. I gotta job to do here, and I can't stand around chit-chatting. You saw 'em. Who was it?


Weather Mapper
The weather today will be dry and sunny. Temperatures will rise quickly to 20°C inland, but sea breezes will cool coastal areas.
Winds will be light from a south-easterly direction.
High cloud may form and drift in from the sea towards late afternoon.
Pollen count : high.
Air quality : moderate inland, but good nearer the coast.
3 kph
20°C
moderate

Plenty of detail, a good forecast – but it's not the same somehow without the smiling Suzanne Charlton, is it?



Body Mapper enables you to chart your own statistics. You can try and do an identikit self portrait as well if you want.

you identify the villain. With the more advanced mysteries, this is significantly less easy than it sounds.

Many children will find solving these mysteries fun, and they'll certainly have to read, digest and form hypotheses from the clues offered. These programs don't have explicit connections with subjects in the National Curriculum or 5-14 in Scotland, but the fact that children have to question the information presented to them by a computer will open their eyes to the possibility of suspect or biased information. Such awareness, some would argue, is an essential skill in today's information age.

■ **Price: £41.11.**
***The Eagle Eye Mysteries* requires 2Mb of RAM for System 6.0.7 (4Mb for System 7) and 11Mb of hard disk space.**
***The London Mysteries* requires 256 colours, 4Mb of RAM and 16Mb of hard disk space.**
For more details contact Macademic on 071 630 6844.

MACFORMAT RATING 90%

BODYMAPPER, HOMEMAPPER & WEATHERMAPPER

Primary and secondary school

These three award-winning programs provide a range of resources connected with the subject in question – the home, the body and the weather. They don't attempt to teach children, as such. They provide information and stimuli to encourage kids to find out more about the subject, and about the methods for collecting and structuring data.

The *Mapper* series develops a whole range of skills: research reading, database retrieval and report writing, for instance. What's more, it's done in a way that shows that knowledge in the real world isn't really divided into the neat subjects on a school timetable. Despite that, though, the resources and approach taken by the programs will fit in with many school subjects – the documentation includes case studies describing how they may be used in lessons.

Many of the activities suggested in the programs can be performed by the whole family. For instance, collecting weather data doesn't take a great deal of time or effort, but it can lead on to interesting discussions. Most of the images used in the programs can be cut and pasted into other applications and printed out, providing handy illustrations for a whole range of homework. For more details, check out the full review of *BodyMapper* and *WeatherMapper* which appeared in MACFORMAT 16.

■ **Price: £64.66 (French and German modules are available as add-ons for £11.70 each).**
Requires: System 6.0.5 or higher, and 2Mb of RAM. For colour you need 256 colours and 4Mb of RAM.
For more details contact TAG Developments on 0800 591262.

MACFORMAT RATING 92%

REDSHIFT

Secondary school

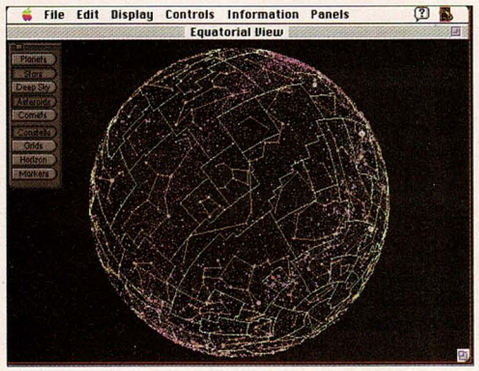
This is an awesome CD-ROM, and one that should prove fascinating even if your children don't need to study elements of astronomy for their science lessons.

RedShift provides 20 guided tours of the universe. Each shows a different astronomical event, such as an eclipse, or the way in which the Earth spins from day into night. There's more to it than that, though. It's a very flexible program, containing all the data you need to show almost anything from what the night sky looked like on the day you were born, to what the sky looks like from Jupiter's moons. You can even zoom in to get detailed fly-by pictures of the surface of Mars.

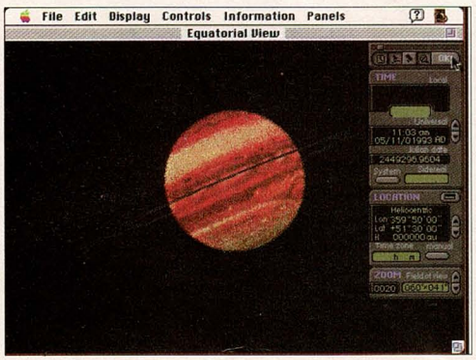
Having looked at a variety of pictures, you can save them as *QuickTime* movies and import them into other documents. You can also cut and paste extracts from the *Penguin Dictionary of Astronomy* to use in your essays (not that you'd want to do anything like that, of course!).

With over 700 photographs and a variety of NASA film clips, *RedShift* provides a wealth of resources that wouldn't normally be available to children at home. The program's controls do take a bit working out in places, but stick at it: it's worth persevering.

RedShift is an astronomer's dream, and even know-nothing novices will be transfixed. It's



Believe it or not, the Earth is somewhere in among this lot. Finding it is another matter. Anyone got an A to Z?



Saturn dead ahead. Fasten your seatbelts, get ready for the first fly-by and watch out for those asteroids.

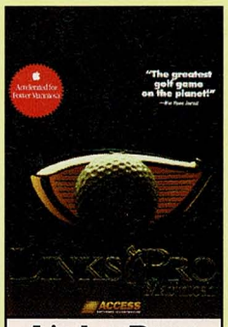
got star maps, stellar journeys, encyclopedic information – in short, everything except *Rebel Assault*-style space shoot-outs.

■ **Price: £64.66.**
Requires: System 6.0.7 or higher, 256 colours, 4Mb of RAM and CD-ROM drive.
For more details contact Macademic on 071 630 6844.

MACFORMAT RATING 92%

AND FINALLY...

What, that lot's not enough? Well, the eagerly-awaited *ClarisWorks* templates and the Dorling Kindersley reference CD-ROMs are on their way, and we'll be reviewing them soon in MACFORMAT.



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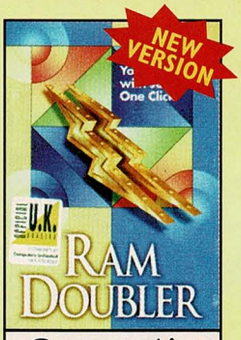

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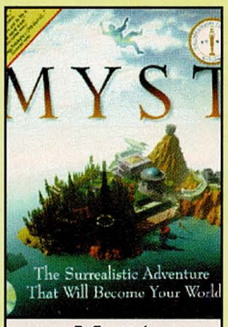

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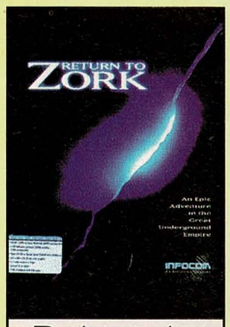

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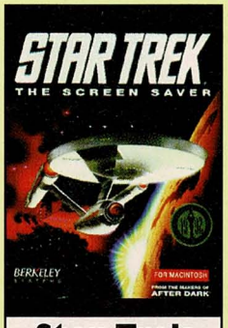

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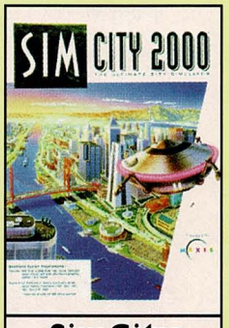

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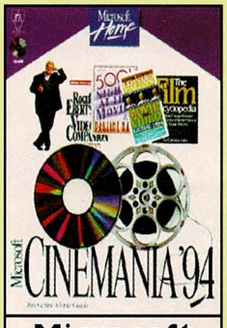

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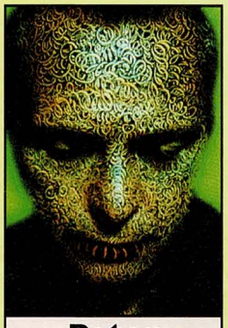

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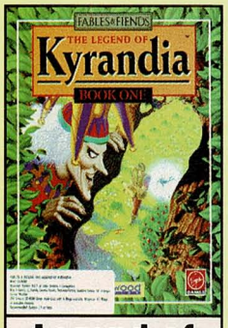

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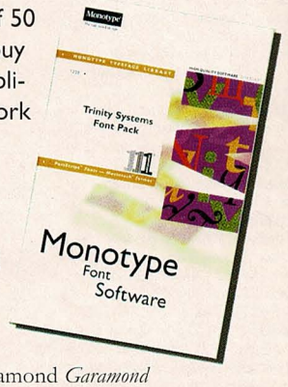

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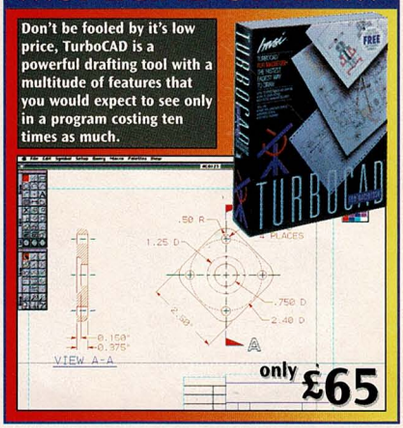

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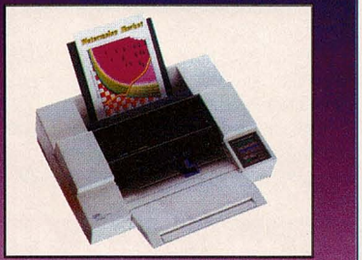

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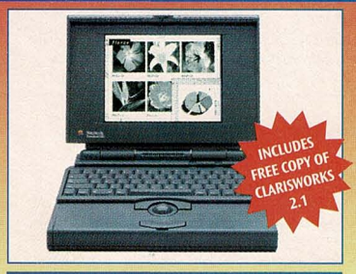

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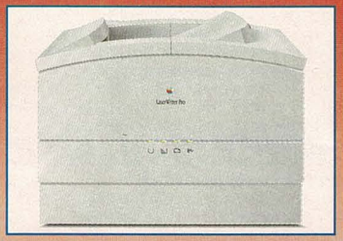

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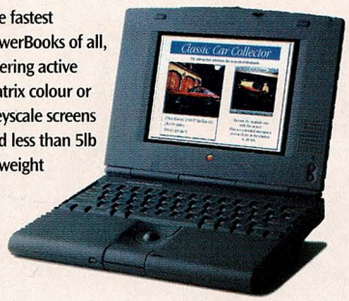

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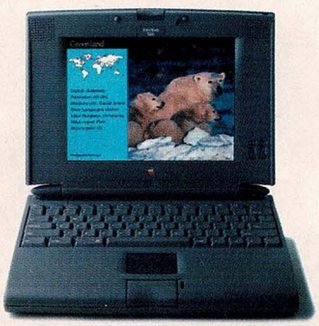

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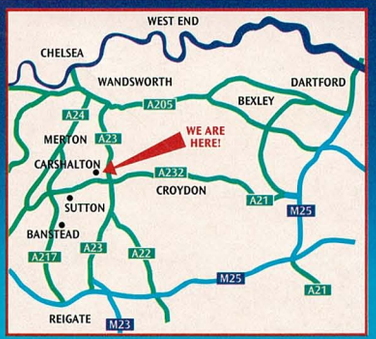

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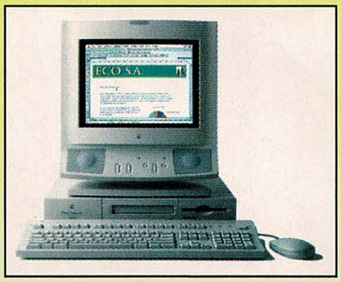

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A test of character

At only £99, Xerox's *TextBridge* is the Mac's first affordable OCR software, so how does it compare to Caere's £699 *OmniPage Professional 5.0*?

Let's face it, the promise of a paperless office never did look likely to materialise, did it? More than ever, we're deluged with letters, announcements, invoices and faxes, which we'd just love to file away on our Macs – if only the people who'd sent them had also joined the digital revolution. And if you've just bought a Mac for your business, how do you begin to transfer the contents of all those filing cabinets to your hard disk? You take one look at those reams of client details, contacts, accounts, schedules and correspondence and reach for the number of your local office temps bureau – only to find that you'll be paying £7 to £10 per hour for the services of a copy typist. The alternative, of course, is to buy some OCR software and attempt to save yourself some time, expense and hassle.

Last year you could have paid anything from £200 to a wallet-busting £1,000 for the software solution to the drudgery of inputting masses of text. So unless you regularly needed to convert paper documents into word processor files, you'd have had a hard job justifying your software purchase. But with Xerox's *TextBridge* smashing the £100 barrier, it's no longer cost-effective to employ a temp, because a mere day and a half of a copy typist's services would pay for a permanent software equivalent. This is fine in theory, but does *TextBridge* work? Well, the answer is yes – and it's a real bargain to boot.

Of course, you need to include the price of a scanner in your equation, because without one you can't import the documents into your OCR software. But the good news is you only need one capable of scanning in mono and at 300 dpi. So the choice on offer immediately embraces the hand-held market and all the other low-cost flatbed models. In short, you needn't spend more than a few hundred pounds.

In my comparison of *TextBridge* and *OmniPage Professional* I've used three forms of hard

TextBridge

Try out *TextBridge* for yourself – the demo's on this month's CD-ROM

It was with more than dash of cynicism that I installed *TextBridge* on my Mac and set about putting it through its paces. I had the impression that OCR was more trouble than it was worth – and that its results required so much manual correction it'd be easier just to type it in and have done with it. But despite a few reservations, I'm now a convert. The reason's simple enough: *TextBridge* does get the job done.

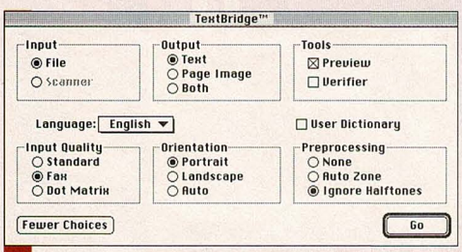
After choosing what type of document you wish to process (be it a standard business letter, fax or dot-matrix printout), you can then set the orientation of the document to either portrait or landscape. Next you can choose whether to scan the document directly from within *TextBridge*, or to pull in a file that's been scanned elsewhere. Because you're able to preview the paper document before the OCR engines kick into gear, you can also choose whether you wish to process the entire document or just parts of it.

Usefully, there's also the option to ignore half tones so the program doesn't spend an eternity trying to convert a picture into a thousand words. At this point, you can either scan the document and commence OCR processing, or just load an existing file and hit 'Go'. Some time later, depending on the complexity of the document involved, you're presented with the output file, all ready to load into your word processor.

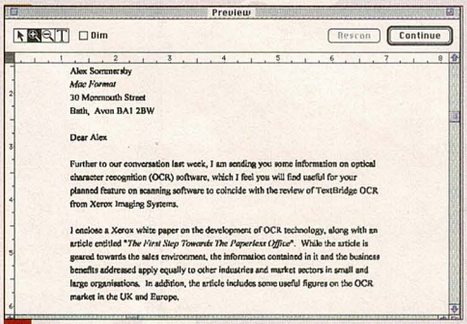
It's here you begin to realise the shortcomings of OCR. While standard business letters are processed easily enough with acceptable results, fax sheets are trickier because so much depends on their initial quality. I found that I had to re-scan the fax with more contrast in order for *TextBridge* to pick out the words. Even then the results were patchy.

And if you try to get it to handle multi-column layouts with different typefaces and fonts, even bigger problems present themselves. First, the processing time (even on the fastest machines) is too prohibitive, and the error rate too high to make it worthwhile. So, if you wish to convert high-end documents into word processor-

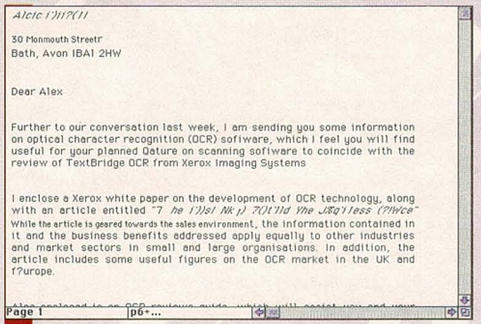
Despite a few reservations, I'm now a convert. The reason's simple enough: TextBridge does get the job done.



1 At *TextBridge's* opening screen select a pre-scanned file or get it to scan one for you. Define the kind of document you want, and whether it should ignore pictures.


Preview
Dim
Rescan
Continue
Alex Sommerby
Mac Format
30 Monmouth Street
Bath, Avon BA1 2BW
Dear Alex
Further to our conversation last week, I am sending you some information on optical character recognition (OCR) software, which I feel you will find useful for your planned feature on scanning software to coincide with the review of TextBridge OCR from Xerox Imaging Systems.
I enclose a Xerox white paper on the development of OCR technology, along with an article entitled "The First Step Towards The Paperless Office". While the article is geared towards the sales environment, the information contained in it and the business benefits addressed apply equally to other industries and market sectors in small and large organisations. In addition, the article includes some useful figures on the OCR market in the UK and Europe.

2 Previewing the document first enables you to make any adjustments to the area you wish to start processing for character recognition.


30 Monmouth Street
Bath, Avon IBA1 2HW
Dear Alex
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While the article is geared towards the sales environment, the information contained in it and the business benefits addressed apply equally to other industries and market sectors in small and large organisations. In addition, the article includes some useful figures on the OCR market in the UK and Europe.
Page 1

3 And here are the results of some raw processing with verification turned off. As you can see there are a lot of mistakes – hell, it could even be a journalist.

copy to test the speed and accuracy of both. First up is perhaps the most common type of paper document: the type-written sheet, of either laser or photostat quality. The second sample used was a fax sheet and the third, an article printed on glossy paper, like those found in magazines and brochures. I didn't even attempt to try hand-written samples, though, because even the manufacturers themselves admit their programs don't stand a snowball in hell's chance of recognising even the most

With Xerox's TextBridge smashing the £100 barrier, it's no longer cost-effective to employ a copy typist's services.

finely printed scrawl. Not yet, at any rate, but they're working on it.

Each of the A4-size hard copy documents that I chose were scanned into the test machine – which was an LC475 with 8Mb of RAM – at 300 dots per inch. Because the samples were made up purely of black text on a white background there was no point in scanning them as anything other than mono line art bitmaps. Even so, the resulting test images were some 1,100K in size, which is a bit on the large size – so bear in mind that if you have a number of documents to process, you might have to watch your storage capacity.

Both *TextBridge* and *OmniPage* use three different methods of optical character recognition to do the heavyweight job of converting bitmaps into type (see the 'How does OCR work?' box above). While more and more packages now use these same techniques, *OmniPage* treads firmly into the future with the inclusion of a neural network system to add more dynamic artificial intelligence to the proceedings. But accuracy alone doesn't make great Optical Character Recognition. Equally important is how the final document looks, and how errors and inaccuracies are identified. After all, there's little point in scanning in an image and having it recognised as a collection of words, if the output document is bereft of any formatting information and includes a jumble of unidentifiable spelling mistakes.

How does OCR work?

Once an image has been scanned, the Optical Character Recognition package goes about converting the bitmap picture into a stream of recognised words. Three processes are used: matrix matching, feature extraction and Intelligent Character Recognition.

Matrix matching is the most basic form and simply consists of the program matching scanned characters with popular typefaces and fonts that are either included with the system or which it has 'learned'.

Feature extraction, also referred to as omnifont technology, involves analysing individual elements of characters. These elements, such as the circular shape of the letter 'o' or the partial circle of the letter 'c', are matched against known data.

Finally, Intelligent Character Recognition processing looks at the features of the characters as well as the word itself for context verification. Here we're heading into the realms of artificial intelligence, with programs automatically learning from mistakes and increasing their knowledge base for better recognition decisions and a higher degree of accuracy.

ready text, you're better off hiring that temp. However, with something as simple as newspaper articles, I had no more problems than with the type-written letter.

In order to get the most from *TextBridge*, you'll need plenty of preparation. First, it's important to know your scanner settings and adjust the brightness and contrast levels to suit the material you wish to sample. You should also make sure the paper isn't scanned at an angle. In addition, it's worth using the verifier to process documents, because the OCR engine learns from its mistakes. In this way, although you may find a lot of errors at the beginning of a multi-page document, these will subside as the processing continues. And, as the package learns, you can adjust the verifier slider button so fewer words are checked as the job goes on.

It's worth using the verifier to process documents, because the OCR engine learns from its mistakes.

Finally, it's worth zoning your documents in the preview stage. That way you only need to process the text you actually require. This will again cut down on the time involved and also improve the software's recognition capabilities.

All in all, *TextBridge* doesn't do a bad job of converting scanned images of words into editable text, it's just that a little care and attention is needed before you start. If you want to use OCR software to recognise business letters and printouts, then look no further. If you wish to process faxes, then the results are less accurate – although you can, of course, modify them. Finally, if you want to scan pages out of MACFORMAT, don't bother – you'll need to preview and zone the material beforehand – and besides that it's a breach of copyright!

TextBridge

Price: £99.
Requires: an LC or better, with System 6.05 or later, and 8Mb of RAM.
For more details contact Xerox Imaging Systems on 071 240 6189.

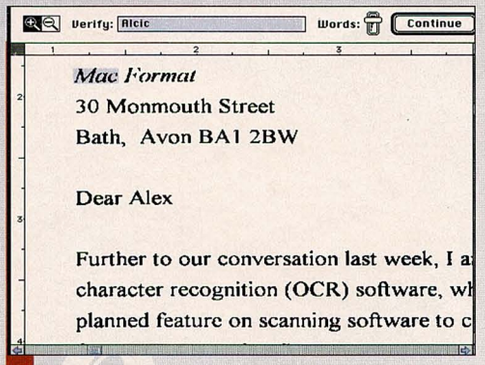
Features 80%
Not a bad collection of OCR capabilities for this price, but the verifier can get somewhat tiresome.

Ease of use 90%
TextBridge is straightforward to use and most of the time its default settings will suffice.

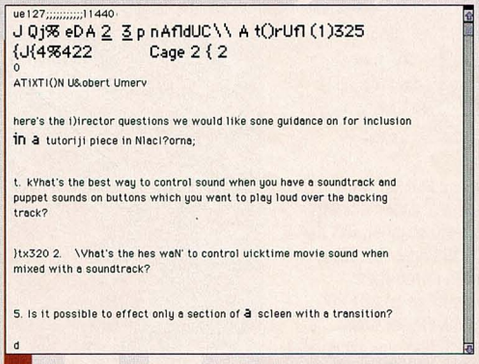
Documentation 86%
The manual is clear and easily understood, covering all aspects of the program in sufficient detail.

Value for money 90%
You can't argue with the price of this one – if you need to scan plain text you can't go wrong.

MACFORMAT RATING 86%



4 If we had processed this particular documentwith the verification option turned on, we could have corrected those italic problems one by one.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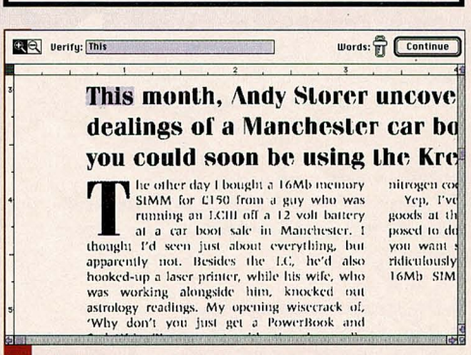
t. kYhat's the best way to control sound when you have a soundtrack and puppet sounds on buttons which you want to play loud over the backing track?
)tx320 2. \What's the hes waN' to control uicktime movie sound when mixed with a soundtrack?
5. Is it possible to effect only a section of a scleen with a transition?
d

5 The poor quality of the original fax has caused more problems here. You can remedy this by scanning with more contrast or manually verifying the recognition.


Verify:
This
Words:
Continue
This month, Andy Storer uncove
dealings of a Manchester car bo
you could soon be using the Kre
The other day I bought a 16Mb memory SIMM for £150 from a guy who was running an LCIII off a 12 volt battery at a car boot sale in Manchester. I thought I'd seen just about everything, but apparently not. Besides the LC, he'd also hooked-up a laser printer, while his wife, who was working alongside him, knocked out astrology readings. My opening wisecrack of, 'Why don't you just get a PowerBook and
nitrogen co
Yep, I've
goods at th
posed to de
you want
ridiculously
16Mb SIM

6 It's the same with a page from MACFORMAT – the column layout and tight leading need a great deal of on-going verification.

OmniPage Professional 5.0

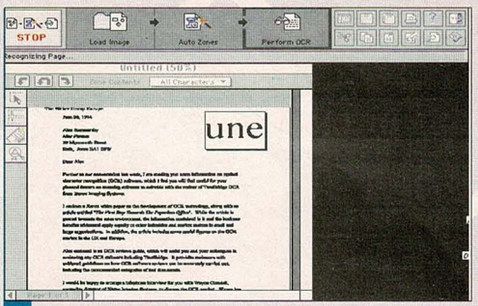
At some £600 more than *TextBridge*, you would expect *OmniPage* to be either over-priced or so laden with extra features that the extra £600 is entirely justifiable. Like *TextBridge*, *OmniPage* comes with a wide selection of scanner drivers, so you can automatically import documents for Optical Character Recognition processing – and, if anything, this is an even simpler process than with *TextBridge*. All you need do in *OmniPage* is click on the 'Auto' button and the entire process is done for you. Of course, there are few pre-sets you have to set up beforehand.

MACFORMAT Classic

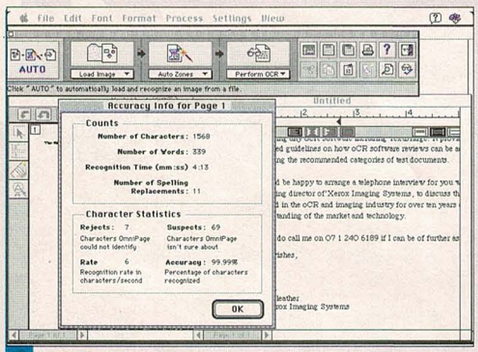
For starters, you can set it to load and process a batch of documents. You can also define the zoning of documents for the entire batch, so if you're attempting to process a number of sheets with common layouts – spreadsheet printouts, for example – you can save time by applying zone templates. Equally handy is the facility to edit and style up recognised text within *OmniPage*, rather than having to export and load it into a word processor as with *TextBridge* – again this saves time.

Perhaps the most significant differences between *TextBridge* and *OmniPage*, though, are in the ways they approach OCR processing. *OmniPage* is more definable in this area – you are able to set it up to process text that's laid out in multiple columns, single columns or in tables. This means that much of the hard work of recognition is taken out of the equation. Couple this with a deferred recognition option, with which the software can recognise and process up to 256 documents in a single batch (probably overnight), and you have a powerful combination.

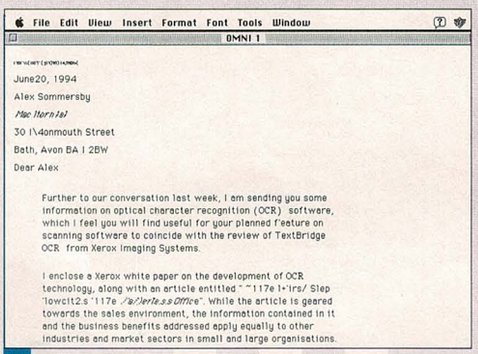
Besides being able to select which nation's language you wish the OCR software to recognise, you can also edit your own user dictionary of common words for any specialist terms. In addition, the package offers you full control over spell-checking, scanning, zoning, font and



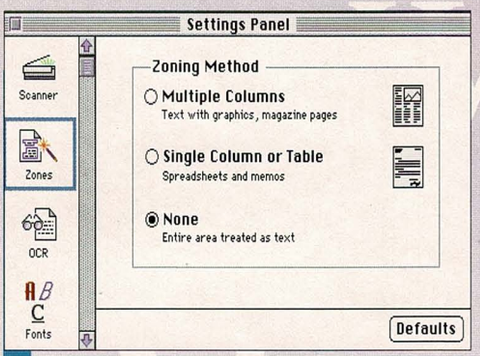
1 *OmniPage's* interface is as easy to use as *TextBridge's*. Here we've loaded the pre-scanned business letter, which *OmniPage* is in the middle of converting into words.



2 As you can see from the accuracy figures, its attempts are pretty good – despite the fact we didn't set it up to specifically recognise a single-column document.


File Edit View Insert Format Font Tools Window
OMNI 1
June20, 1994
Alex Sommersby
Mac Format
30 Wadonmouth Street
Bath, Avon BA 1 2BW
Dear Alex
Further to our conversation last week, I am sending you some information on optical character recognition (OCR) software, which I feel you will find useful for your planned feature on scanning software to coincide with the review of TextBridge OCR from Xerox Imaging Systems.
I enclose a Xerox white paper on the development of OCR technology, along with an article entitled "Using Irish Step towards the sales environment, the information contained in it and the business benefits addressed apply equally to other industries and market sectors in small and large organisations.

3 But looking at the results, we encounter similar problems to those which *TextBridge* found – it's those italics again. Neither program can deal with them effectively.



4 Where *OmniPage* differs from *TextBridge* is in the way *OmniPage* enables you to define what kind of typed document you want to process.

TEN QUESTIONS TO ASK WHEN BUYING OCR SOFTWARE

1 Unattended operation
How well does the software handle a basic business letter without any user intervention? How well does it handle a two-column document, and can you edit the columns in your word processing package straight away?

2 Image detection
Does the package have the facility to remove photos or halftone images from scanned documents? If so, processing times will be drastically reduced.

3 Automatic operation
Can the OCR software detect and compensate for documents that are skewed or even upside-down?

4 Document zoning
Does the OCR software have the facility for you to preview the page prior to recognition and manually zone only the parts of the page that you want to recognise?

5 Diverse document types
Does the package support newspaper, grainy fax, poor photocopies and on-line fax modem documents as well as good quality, laser-printed business letters?

6 Ease of use
Can you configure the OCR software so settings can be easily changed according to the complexity of the task at hand?

7 Output options
Does the program offer output formats for all popular word processing packages? Does it retain format characteristics, and is the final result editable?

You can scan your orignial document with a hand scanner, like the £539 Caere OmniScan from Computers Unlimited on 081 200 8282. Or, for finer resolution, you could try a flatbed scanner like the Epson GT-6500, which starts at £1,075 (Call Epson on 0442 227478 for more details).

WIN
Win yourself an Epson scanner– see page 130 for details

A word about copyright

It is well worth bearing in mind that copying any published material without the express permission of the publisher is a breach of copyright, and as such is against the law.

styling options. Usefully, *OmniPage* will also rotate text (through up to 180 degrees) for perfect alignment, meaning even pages scanned in upside down can be easily processed.

OmniPage's most sophisticated feature, though, is its Language Analyst. This is a preset utility that you can use to perform word and character analysis during the recognition process, to check spelling and replace unknown words. Using context and usage rules, the Language Analyst can evaluate words in any of its on-board languages; it can also be set to ignore proper nouns, abbreviations and acronyms that might otherwise be processed incorrectly.

Finally, *OmniPage* offers greater control over any images within documents. By setting your scanned page type to multiple columns, *OmniPage* will retain original graphics, such as photographs or diagrams, and separate them out from the text it's converting. These images can then be manipulated, edited and generally cleaned up in *OmniPage's* 24-bit image-editing package, *Image Assistant*. This can also be used as a standalone application to scan and edit colour, greyscale and line art images for output in a variety of formats. The only downside to the inclusion of *Image Assistant* is that you must have at least 9Mb of RAM to run the two applications simultaneously.

So, in actual everyday tests, how do *TextBridge* and *OmniPage* compare? Well, as you might expect given the price differential, *OmniPage* is faster, more accurate and generally far more sophisticated in its Optical Character Recognition capabilities. Whether these factors together are worth an extra £600 largely depends on your needs, though.

If you wish to use Optical Character Recognition software for a range of document styles – including brochures, magazines, artwork and complex documents that incorporate tables and diagrams, then *OmniPage* is your best bet. It also includes a proprietary neural network for handling low-resolution documents such as poor quality faxes. You also get a full-blown image-processing application for your money. However if you merely want software capable of scanning and recognising typed letters or documents and good quality faxes, then look no further than *TextBridge*.

Andy Storer

OMNIPAGE PROFESSIONAL 5.0

Price: £699.
Requires: IIci or better, System 7.0 or later, and 8Mb of RAM.
For more details contact Caere on 071 580 5434.

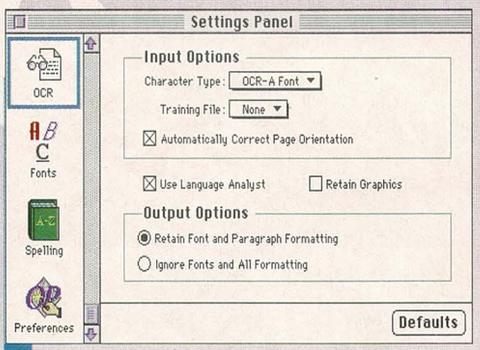
Features 90%
Just about all you could ask for, and it also includes a 24-bit image-processing package.

Ease of use 94%
Simplicity itself, with a comprehensive range of options and user-defined pre-sets.

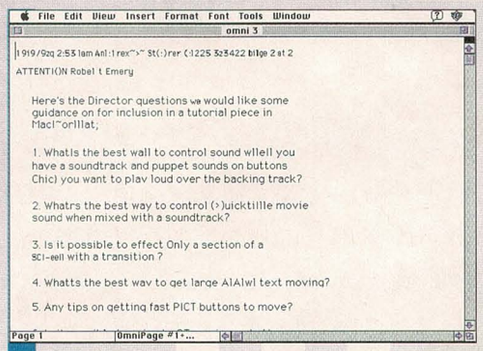
Documentation 90%
Copious amounts of documentation, covering every aspect of the program.

Value for money 88%
Over-priced for anyone except professional businesses, but fine if you need the variety of features.

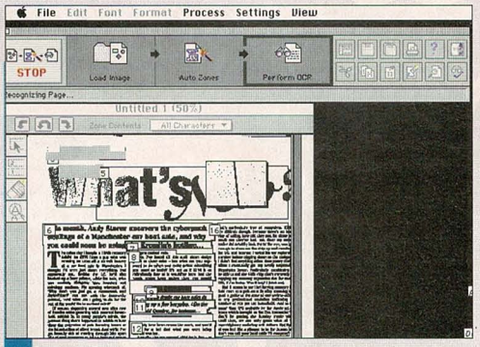
MACFORMAT RATING 90%



5 The OCR settings for *OmniPage* have a much better range of options than *TextBridge's*, giving you more control over how input is treated.


File Edit View Insert Format Font Tools Window
omni 3
ATTENTION Robel t Emery
Here's the Director questions we would like some guidance on for inclusion in a tutorial piece in
1. Whatis the best wall to control sound wlleil you have a soundtrack and puppet sounds on buttons Chic) you want to plav loud over the backing track?
2. Whatrs the best way to control (>)uicktillle movie sound when mixed with a soundtrack?
3. Is it possible to effect Only a section of a SCI-eell with a transition ?
4. Whatts the best wav to get large AIAlwl text moving?
5. Any tips on getting fast PICT buttons to move?

6 Here's the result of the poor quality fax we got *OmniPage* to recognise and convert for us. It's done a much better job than *TextBridge*, but still needs a few corrections.



7 Using *OmniPage*'s manual zoning option you can divide a complex document up into its constituent areas, which minimises processing time and maximises accuracy.

8 Input options
Can the OCR software accept TIFF format image files from a scanner or fax modem? Can it drive a variety of scanners?

9 Integration
Does the software run as a standalone application, or does it enable you to integrate the character recognition into other applications?

10 User Interaction
Can you train the system to recognise distorted or degraded characters, thereby minimising recurring errors?

You also need to buy a scanner. Therefore, you need to thoroughly investigate any potential compatibility problems when you are buying the OCR software.

THE MYTH OF THE PAPERLESS OFFICE

If current market research is to be believed, far from abolishing paper it seems that we are now using more of it than ever before. Last year, a report conducted by the Association for Information and Image Management revealed that in the US, businesses generated more than one million million paper documents, of which 2.7 thousand million go into file folders each day – and that's a lot of paper. What's more, AIIM estimates that the number of paper documents is growing at the astounding rate of 20% a year – bye bye, British Columbia, Brazil and Norway.

Perhaps most revealing, though, are the figures that were produced by a recent *Fortune* magazine investigation. This investigation found that since 1983, US businesses bought a total of 25 million office computers. During the same period, office paper purchases rose by a staggering 51%. So, in short, we're about as near to the paperless office as we are to the paperless toilet...

Does the £99 TextBridge spell the death of the copy typist?

In the final analysis, all an Optical Character Recognition package is meant to do is save you the time of typing in documents and the expense of getting someone else to do it for you. Remember, though, it's not just the time it takes to process the scanned document in question, you also have to allow for the time the initial scan takes beforehand and the effort that's required to tidy up and correct the results afterwards.

Even though *TextBridge*'s character recognition engine is pretty smart you still have to run spell-checkers through its output and manually refer to the original paper copy just to be on the safe side. Added together these might well take as long as it takes a copy typist to whiz through all that text – but at least you won't be paying an extortionate hourly fee of up to £10, because *TextBridge* will have paid for itself after its first two days on the job...

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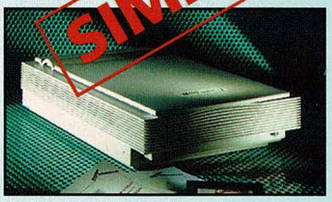
Acquisition, Browsing, Painting, Editing and High Quality Printing for everybody

FULL ACQUIRING & BROWSING CAPABILITIES

SIMPLE



ColorStation Pro is fully compatible with Photoshop™ type plug-ins. You can scan directly into it from any scanner, digital camera...

Including great value browser. You can create your catalogues, file your images and find them at a glimpse. Search functions +...

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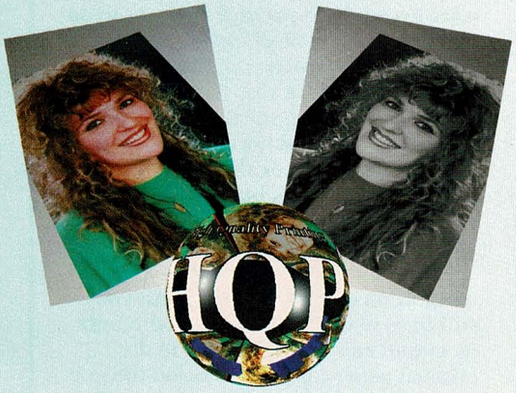
FAST

You can open any image with as little as 1 Mb of free RAM and easily perform advanced retouching and montage operations : painting, cloning... selections, feathering, 8 bit mask editing... Br./Cont., colours, blur, sharpness corrections... crop, resize, rotate... use external plug-in filters : KPT™, Aldus™ Andromeda™... all with 32 levels of undos, and much more... **Unique «Quit Special» and Amazing «Open Fast» Features.**



HIGH QUALITY PRINTS AUTOMATICALLY

COMPLETE

HQP® is a very easy to use and powerful technology. First, it allows you with a single keystroke operation to calibrate your printer and apply the best dithering for it. Second, when opening an image, HQP analyses it and corrects brightness, contrast and dominant colour values if necessary. Upon printing, you will achieve **the best quality possible.** You can also perform CMYK separation for offset printing.

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le pixel

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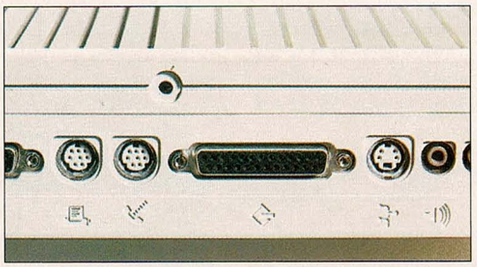
On the chain gang

Most crashes are caused by software, but SCSI problems come a close second. Stuart McHugh and Alex Summersby explain the basics...

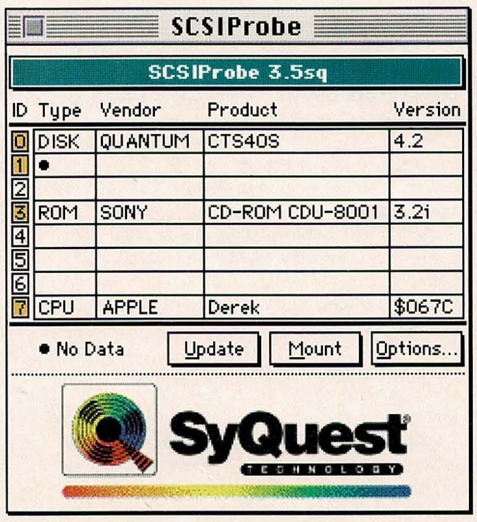
Does your Mac crash for no apparent reason, or sometimes refuse to start up at all? Silly question – of course it does. Last issue, in the first part of this series, we set out the likely causes of different types of crash, freeze and startup problem, and explained what you could do about them. (If you missed that issue, run – do not walk – to page 102 and order a copy now!) The most common causes have to do with software – conflicts between System Extensions (called INITs before System 7); programming bugs or poor memory management in applications; or corruption in various parts of the System software. But the next most common culprit is a notorious troublemaker called SCSI.



There's a very handy rule of thumb when dealing with Mac connections: if the plug fits, you've probably got the right port. In the case of SCSI, it's the one with the completely unintelligible diamond symbol – so now you know.

SCSI (pronounced 'scuzzy' – no-one pronounces it 'sexy' any more, do they?) stands for the Small Computer Systems Interface. It's a standard for data transfer, and it's built into every Mac from the Plus onwards. (By contrast, it's an optional extra for most PC- and Unix-based systems – you need to buy an interface card and mess about with setup software. Isn't Apple good to you?) The Mac's other communication system, AppleTalk, enables you to connect your Mac to printers or to other Macs via the serial port on the back of your machine. SCSI is a theoretically much faster system, so it is the method normally used to connect hard disks, CD-ROM drives, removable-cartridge drives, scanners, and some types of printers – any device that needs to shift a lot of data at speed between itself and your Mac.

Like AppleTalk, SCSI enables you to 'daisy-chain' several devices – see the illustration on this page – but that's where the similarity ends. An AppleTalk network could include a hundred Macs and printers; SCSI is rather more limited. The SCSI 'data bus' has just eight data lines. Each of these lines can be taken by one device, and each is assigned an ID number from 0 to 7. But the Mac itself takes ID 7, and usually there will be an internal hard disk, which takes ID 0. So that's six external devices you can connect. However, it's not always that straightforward.



SCSI Probe is an invaluable little utility that enables you to see exactly what your Mac is seeing on the SCSI chain – where 0 is the internal hard disk, and 7 is the Mac itself. Often *SCSI Probe* can persuade it to 'recognise' a device – even if the device is doing its best to hide its identity...

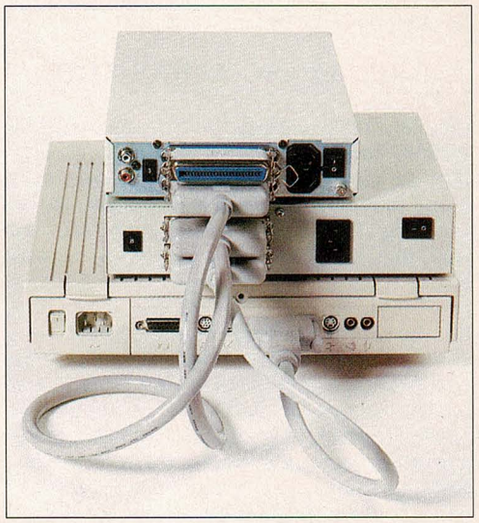
Your number's up

ID numbers can be a real headache. The golden rule is that every device on the chain must have a different number – otherwise your Mac probably won't even start up. At all. Any SCSI device will come with a pre-set ID (normally between 1 and 6), but you can reset this on most modern devices, usually by a push-button on the back or a dial-style setting. If you're really unlucky you might have to open up the casing and adjust a set of dip switches to give the desired number. (But in that case it might be easier to reset the others instead...)

It can even be possible to set the SCSI address by use of software – perhaps in the 'Preferences' or 'Settings' option in scanning or slide-imaging software. This can have bizarre consequences if the number you assign does not correspond to the physical number on the device's switch. For instance, we've seen a scanner attempt to scan when 'Print' was selected. Although things may not get as weird as this for you, suffice to say things will not work as they should.

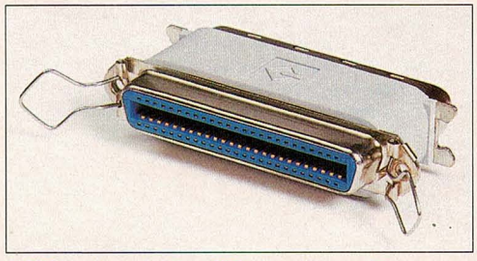
Beware the Terminator

The SCSI system achieves its high speeds by using all eight data lines. Each device uses its own line to 'sense' whether the whole bus is busy, and if not it can 'capture' the whole eight lines to transfer its own data. However, when a device sends some data to the Mac it will await a 'confirmation' signal from the Mac before it sends the next bit of data. It's all this traffic that leads to the biggest headache in SCSI systems – termination. If data were just being transmitted as an electrical pulse up the bus, it would simply 'bounce' back down the line, and such a signal could be misinterpreted as saying the bus was in use when it wasn't, or even vice-versa. So terminators are installed at the start and end of the chain. What these do is 'damp' the current so that spurious signals aren't flying up and down the chain.



A typical SCSI daisychain: the CD-ROM drive plugs into the SyQuest drive, which is plugged into the Mac. The terminator at the top marks the end of the chain. Note that the ID numbers of the two devices can be reset but must remain different. They don't need to be connected in numerical order.

If you have no external SCSI device connected, the chain is just the Mac talking to its own hard drive – no problem; both have termination built-in. But external devices handle termination in different ways, and this is where many problems start. The best scenario is an unterminated device. Then you can plug it in and simply add a terminator (like a SCSI plug without a cable) that completes the chain. Some devices offer 'intelligent' termination, where they terminate themselves according to what they detect on the bus when they're added to it. The worst thing you can find is a

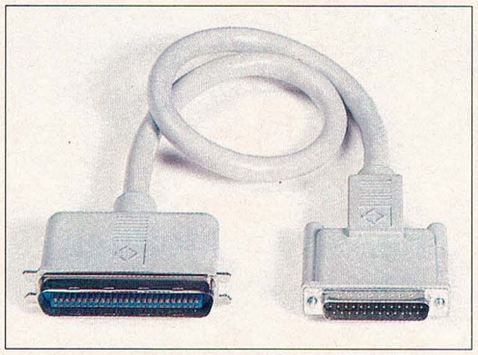


A SCSI terminator is like a SCSI plug with no cabling attached. It simply marks the end of the SCSI chain and 'damps' the electrical signals flying up and down the chain.

device which is internally terminated. Having more than two terminators in a chain won't necessarily cause everything to fail (though it does make it pretty likely!), but what it is sure to do is damp the signal that other devices on the chain can detect, so problems are more likely to occur. You *may* find you have to open up the device up and remove the terminators.

Making the connection

Like any other cabling, SCSI leads should be securely connected, unsnagged and in good repair. In fact, SCSI seems to be a little more prone to problems, which is one reason for the fastening clips attached to the plugs. Also, the way that the channels are sensed by each device relies heavily on the current that they can detect. So if you have a choice of cables, use the shortest that will do the job. Very long cabling arrangements will lead to trouble – the length of the chain shouldn't really exceed 20 feet or so. You can get SCSI Cable Extenders, however, which plug into an existing cable and enable you to place a bulky scanner on another desk or perhaps put a noisy hard disk out of the way. SCSI Peripheral Interface Cables (with a 50 pin connector on both ends) are used to connect one device to another in the chain, while the only use of the SCSI System Cable (50 pin to 25 pin) is to connect the chain to your Mac.



To connect a SCSI device to your Mac, you need to get hold of a SCSI System Cable. It has a 50 pin connector on one end (the device end) and a 25 pin on the other (the Mac end).

SCSI cables look solid and robust but in fact they're quite prone to problems – and that's in addition to popping out of their sockets if not secured correctly. Breaks in the cable can occur deep inside the sea of wires that makes up one connector. And pins can become bent either in the SCSI plug or in the 25 pin D-connector on the back of your Mac. So when you're checking out a potential SCSI problem, if possible try a different cable.

It's a start

In theory you should switch on every device before the Macintosh to let them be recognised. Turning on devices afterwards can cause problems, but it would be unusual if actual damage was caused. Leaving devices switched on all the time is often unattractive – in the case of a scanner for instance, which won't be in use all day. If your SCSI combination lets you turn it on later then fine.

Some devices will allow for their being switched on after the Mac is booted. Others won't. If the Mac sees a 'dead' SCSI device on the chain it may not be able to boot; at other times it will. The reasons for this vary – the position of the dead device on the chain, whether it's terminated, and of course the other characteristics of the chain (length, type and termination of other devices, etc, etc).

Generally, though, most hard disks can be switched on later, and subsequently 'mounted' using a utility like *SCSI Probe* or similar. (It was on last issue's MACFORMAT cover disk or, if you missed that, it's available from user groups and bulletin boards.) If CD-ROMs aren't turned on first they often won't appear on the Desktop, and no amount of coaxing will help, though all other aspects of operation will be OK. Scanners often tend to cause the entire system to hang if they're powered up after the Mac.

What you shouldn't do is physically plug in devices to a SCSI chain while they have power. You might get away with this seven times out of ten, but don't become complacent – in the worst case it could fry your Mac. It's really not worth the risk. But apart from all that, SCSI is just great! *Stuart McHugh & Alex Summersby*

SOLVING SCSI PROBLEMS

Last issue we examined a whole range of crashes, freezes and startup problems, what the likely causes were, and what you could do about them. The examples here are *not* a complete guide to Mac problems, just a more detailed look at specifically SCSI-related symptoms and solutions...

1. Symptom: flashing '?'
When you start up, you get a disk icon with a flashing '?' instead of the 'Welcome to Macintosh' screen. This is the main symptom of a SCSI problem.
Possible cause
(a) One or more of the devices in the SCSI chain are not switched on.
(b) One or more devices have the same SCSI ID number.
(c) The SCSI chain is not terminated.
(d) Too many devices in the SCSI chain are terminated.
(e) The cabling is not secure.
(f) The SCSI chain is too long.
(g) There may be a non-SCSI problem – such as a corrupted System on the boot disk. Check last issue's step-by-step guide for more advice.
Action
(a) Unplug the SCSI chain from your Mac, then try to start up. If this works, then you do have a SCSI problem.
(b) Check that all the SCSI cabling is secure and undamaged. Switch everything off, wait for a minute or so to give things a chance to settle, then switch all the devices in the SCSI chain on again (the order really shouldn't matter). Wait 30 seconds or so, to give hard disks and so on the time to spin up, *then* start up your Mac. Use *SCSI Probe* to check what your Mac is seeing on the SCSI chain.
(c) If you have several devices in the chain, try swapping them about. In theory this should make no difference, but some just like being closer to the Mac. It can help to swap the cables about too. Don't ask us why.
(d) Check that all devices have unique IDs.
(e) Check the termination of the chain. If necessary, consult the manuals you got with your devices to see if they are internally terminated.
(f) Don't assume it's SCSI. Do the usual checks on your hard disk as described last issue – start up from an emergency startup floppy disk and run *Disk First Aid*, etc. (If this means nothing to you, you need to turn to page 102 and order a copy of MACFORMAT 18 urgently.)
(g) Oh, and you can try 'zapping' (resetting) the PRAM. The Parameter RAM contains details of which device will be used to start up, so resetting this may return things to normal. To do this, hold down [command] [option] P R when you start up or restart your Mac.

2. Symptom: 'sad Mac'
At startup, instead of the 'Welcome to Macintosh' screen you get a black screen with a 'sad Mac'.
Possible cause
This could be a SCSI problem; but again, other trouble-shooting techniques may prove otherwise. If it is SCSI-related, this is more likely to be a genuine hardware fault, but check as for 1 anyway.
Action
Try checks as for 1 above. Unplug everything, then do a diagnosis on the assumption that it's *not* a SCSI problem. The problem could be RAM or the System file – see last month's issue for more details.

3. Symptom: device is invisible
When the System does succeed in booting, you can't see a device. You may get a message saying 'Couldn't find scanner' or similar, or the icon for a hard disk or CD doesn't appear on the Desktop.
Possible cause
(a) In theory, the cause of this could be any of 1(a-f) above. If the System booted OK, then it's more likely that something has changed since then. So check whether the cabling has come loose somewhere, etc.
(b) A device's software ID doesn't match the one set by hardware on the device.
(c) A device was switched on after the Mac booted. Or a device was switched on too soon before the Mac's startup, and didn't get the chance to 'warm up' before the Mac tried to recognise it.
Action
As above – restart with all devices *on*, and ensure that software and hardware IDs match.

4. Symptom: copying problems
Copying data to or from a SCSI device becomes slow, or you suffer from recurring copy errors.
Possible cause
Some of the cabling is insecure or faulty. Alternatively, a SCSI device itself is faulty.
Action
Try a different cable if possible – if there's still a problem then the cause could be the device – get it checked out. (Slow copying might be caused by many other things, but disk errors that imply that the disk couldn't be found are either disk or SCSI problems.)

5. Symptom: Slo-o-o-w display
You begin to suffer slow screen display – like, *really* slow!
Possible cause
A device was switched on after the System had booted. Or this may be a fault in a device, cabling or termination.
Action
(a) Restart your Mac, making sure you've switched SCSI devices on first.
(b) Check cabling and termination.
(c) As a last resort, get the device checked out.

6. Symptom: freeze!
The System freezes or 'hangs' if you switch on a device after the Mac is booted.
Possible cause
Your System or the particular device won't allow you to switch on your device after booting.
Action
You'll either have to have devices *on* all the time, or else power down your Mac to connect them as needed.

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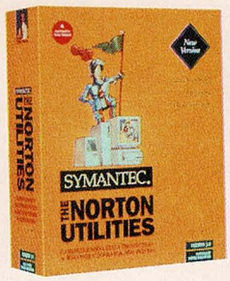

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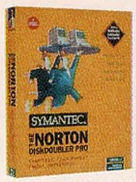

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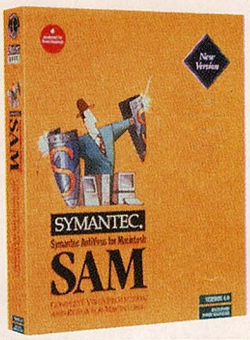

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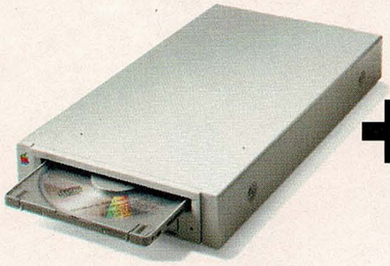

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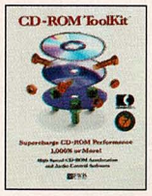

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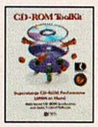

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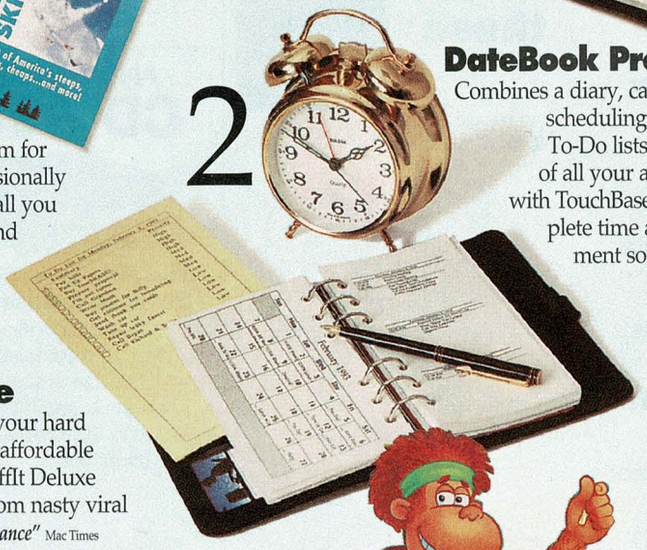

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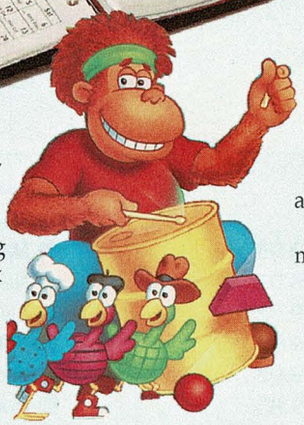

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SHADOW PLAY

Do you want your artwork to gain an extra dimension of reality? The easiest way is to use shadows – we show you how with *your* art package.

We really are very easy to fool. Often the simplest illusion can trick our eyes – or rather our brains – into thinking the marks we're viewing are 3D objects coming out from the page. Even a single dark line offset to one side can throw a basic object into relief – just look at the windows on the Mac Desktop, for example. In the same way, text and logos can be made to look even more dramatic by floating them above a surface. You can easily create this type of effect by placing a dark, soft-edged blur offset below and to the right of the main object; this is the classic 'drop shadow' effect. With a little more manipulation, shadows can be made to look as if they've been cast in any direction, giving an object a strong three-dimensional appearance.

Drop shadows

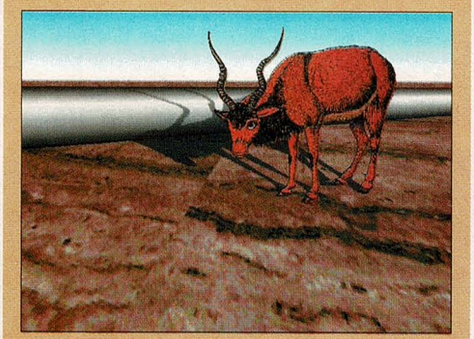
Drop and cast shadows like these are quite easy to produce, providing you're using reasonably powerful paint software. The tips and tutorials here will help get you started. If you're limited to 256 (or fewer) colours by your software, though, don't despair – the tutorials also show you how to achieve excellent shadows with a limited palette. If you're using hundreds (rather than thousands or millions) of colours in your image, and you want to use painting modes such as Darken or Tint, you need to make sure that you have enough suitable shades in the palette to start with. If there aren't enough, then when the shadow's cast on to an object with a subtle gradient, the lack of colours may result in ugly banding and a bizarre choice of darkened shades.

Here's two types of shadow. The white sheep have 'drop shadows' produced by Alien Skin's *DropShadow* Plug-In (see MACFORMAT 13's cover disk). The 'black' sheep, on the other hand, has a 'cast' shadow as described in the tutorials.

For example, the simplest way to produce shadows in *Studio 8* (and the one described in the manual) is to carefully construct a range of colours that are essentially darker versions of the ones the shadow will be covering. This means that you need to know in advance which colours will be used by the effect. Now, not only is this difficult to predict, but it also hampers fluid, spontaneous painting – especially if most of the palette is already full of unsuitable colours.

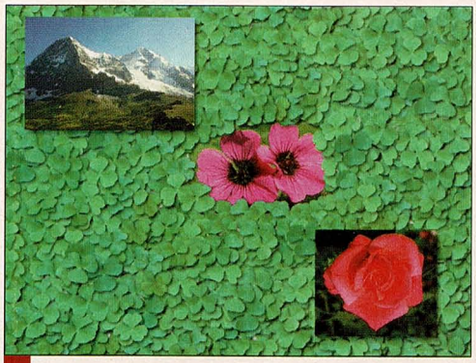
Often, alternative methods can be used that get round this sort of problem. In *Studio 8*, you can force the program to use suitable colours by using the Brush/Tint option on the darkest shade included in the background that the shadow covers. In other programs, where the background is reasonably simple, you can

3D SHADOWS

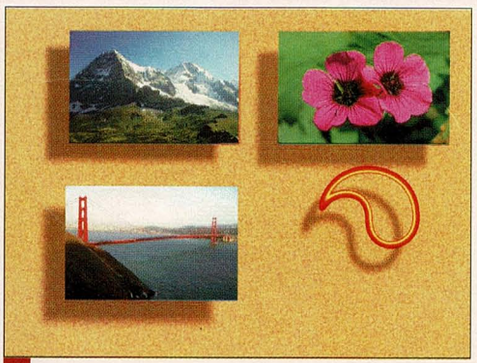


Shadows cast over 3D objects are distorted accordingly. The cases described in the 'Producing flat shadows' box on page 65 still apply, but the shadow must be distorted to match the object. A simple model can be invaluable to determine the form of distortion. Here the silhouette was sheared to match the perspective, then the top half was selected and bent to match the curve of the pipe.

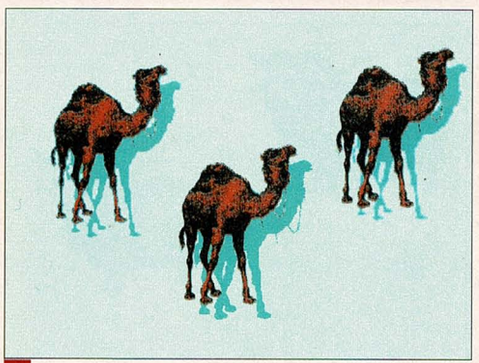
SHADOW PLAY — DROP SHADOWS



1 Version 3 of *Painter* (due for release soon) has several built-in 'drop shadow' effects, a few of which we have shown here. The rose image is a 'floating' object with a 'drop shadow' attached automatically. The clover leaves were created using Fractal's latest innovation: the *Image Hose*. This sprays a variety of leaf images sequentially, placing drop shadows under each one automatically. The Rose shadow was created using Alien Skin's *Drop Shadow* Plug-In.



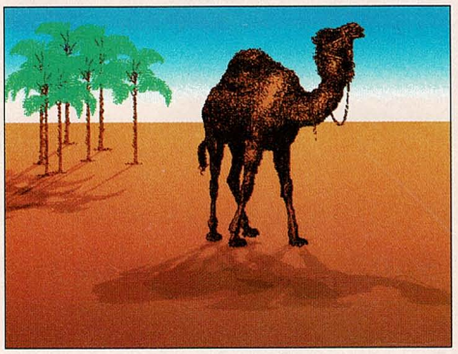
2 Like *Painter 2.0*, *Photoshop 2.5* has no built-in 'drop shadow' effect, but, as you can see from the Golden Gate image, Alien Skin's *DropShadow* Plug-In remedies this omission. Nevertheless, shadows can be created easily within a feathered selection either by using a black fill with 50% opacity – as in the mountain image – or by adjusting the Brightness and Contrast – as in the flowers image. (Make sure that you note the caution in the main text!)



3 *Studio 32* has built-in, adjustable 'drop shadows', but unfortunately, it doesn't soften the shadow's edges (centre). Even worse, the shadow selection remains joined to the object casting the shadow, so you need to use Blend Edges to soften them (left)! Nevertheless, *Studio 32* provides several methods to darken an area with its Selection/Process menu. Using these you can manually soften the edges to create conventional 'drop shadows' (right).

THE SHADOW WORLD

To draw realistic-looking shadows, you have to understand the properties of light and shade. If you have a single point of light, the shadows are evenly dark with sharp edges. In real life, though, there's usually some background or 'ambient' light; often there'll be multiple sources, or a single source will be large enough to blur the edges of the shadow. (Each side of the light will cast a separate, slightly offset shadow. The points at which they overlap will be darker, while the edges will look blurred, an effect that increases as the shadow stretches further from the object.) Ambient light will also deaden the effect of the shadow, so the further it stretches from the 'casting' object the more it blends into the overall shading. Reproducing these effects



accurately can require quite sophisticated Alpha channels and transparency maps, but with a little ingenuity you can get similar results from more limited programs.

Jargon Busters

Alpha channels: a separate 8-bit greyscale image within a document, which is used for isolating, modifying, and storing masks.

Floating object: some paint and image-processing programs enable parts of the image to 'float'. These are sections of the bitmap that are treated as separate objects that can be 'floated' over the main image without affecting it. With *Painter 2* using *X2* Extensions, *Painter 3.0* and *Photoshop*, these objects can have feathered edges and adjustable transparency.

Transparency mapping: many programs enable you to make pasted selections relatively transparent, so they show the area underneath (although 8-bit software needs suitable colours available in the palette to do this). The best software enables you to vary the degree of transparency. In this way, shadows can have soft edges and fade out according to their distance from the 'casting' object.

DROP SHADOW TEXT

Like most sophisticated paint programs, *Painter 2.0* provides tools that enable you to construct very realistic-looking 'drop shadows', especially with type. Text is placed on screen as a frisket, which can then be feathered to give the soft edges characteristic of shadows. Once you've done that, the frisket can be filled with black using the 'Effects/Fill' and 'Edit/Fade' options or darkened using 'Effects/Color'.

attain acceptable results by constructing the shadow by hand. Using a 'Patterned' shadow can also give excellent results. These techniques are all described in the tutorials.

Working with loads of colours in a professional program like *Photoshop* or *Painter* can also cause problems – especially if you're going on to high-res imagesetting or proofing. In these programs there are a number of ways to achieve the same apparent endpoint. Shadows can be created by darkening the colours in the shadow area. This can be achieved using Gamma curves, reducing the Brightness and Contrast, or creating a black shadow before making it relatively transparent. The different shadows look the same on screen, but once you print, the results can be different, especially with certain hues – notably blues. This is where using CMYK rather than RGB can be useful.

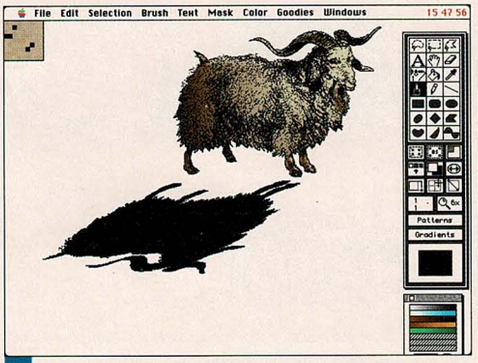
If you want to make things a little easier, think about the composition of your layout. Often the picture can be constructed as though the light-source were above and behind the viewer – that way only a minimal ground shadow is visible behind the object. Here, the shape of the shadow and the inconsistencies produced by palette problems are minimised. The tutorials also deal with other, more tricky, cases, like shadows cast forward or on to objects.

The object's shape will also greatly affect the way you draw the shadow. Objects like trees, which stand on a single base, are easy – their shadows are really just suitably distorted copies of the original. Objects with legs are more difficult, especially if the shadow is cast toward the viewer. The legs farthest from the viewer are left disembodied from their shadows, and so some editing of the shape must take place.

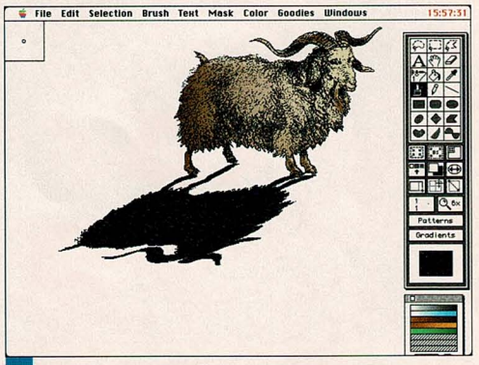
If you're unsure about how a particular shadow might look, especially if it's cast across another object, try setting up a simple model with a torch, everyday objects (matchboxes,

PRODUCING SHADOW BRUSHES

1 The original object could be virtually anything – scanned, drawn and painted, even rendered from a 3D program. Our image, here, was scanned as a 1-bit image from a copyright-free source book of Victorian etchings. The scan was then cleaned up and given a gradient-filled background. After that we blended with a Blend tool to hide the more obvious engraving marks.

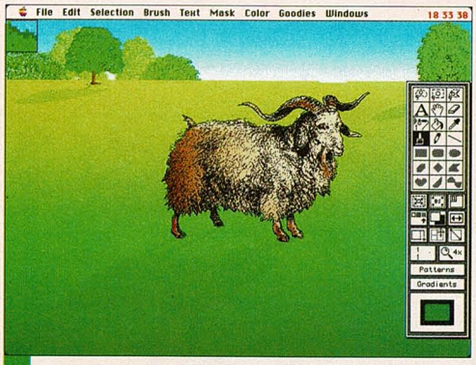


2 Using a copy of the original, the shadow is created. First the selection is filled with black. Then it is 'Flipped' vertically and distorted so it's parallel with the perspective plane and therefore looks like a realistic shadow. To do this, you can use the Shear, Perspective and Distort tools. Make sure that the shadow is in the correct ground plane and opposite the light source.

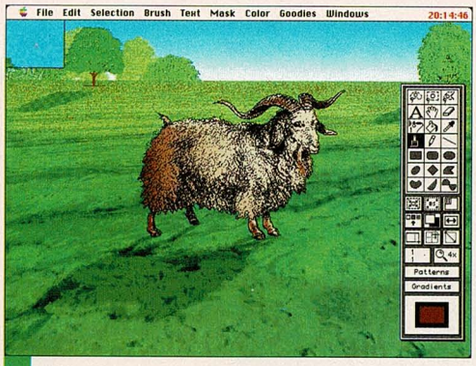


3 If the object has one base – say, like a tree, house or rock – you can use the copy you've made as it is, or soften it as shown in the screenshot on the right. If it has several bases – like an animal or a bridge – the shadow may need editing. In this case the Smudge/Finger tool is used to extend the shadow bases (legs, wheels, etc) to meet the original ones. You may need to draw the extra bits in by hand.

PRODUCING FLAT SHADOWS



1 With only hundreds of colours to choose from, *Studio 8* and other older software can make a poor job of shading over subtle gradients. However, if you choose a single solid colour matched to the darkest shade in the gradient, the shadow appears to fade. You can soften the edge by outlining the shadow brush with a pattern of alternate transparent and opaque pixels.



2 8-bit programs often have trouble creating a convincing shadow if the background is very detailed. Try using a patterned shadow brush with a chequerboard of alternate transparent and opaque pixels. Although the pattern sometimes shows, it's a quick and easy solution, and works well at high resolutions. Choose a colour that will blend best with the background and the overall lighting.

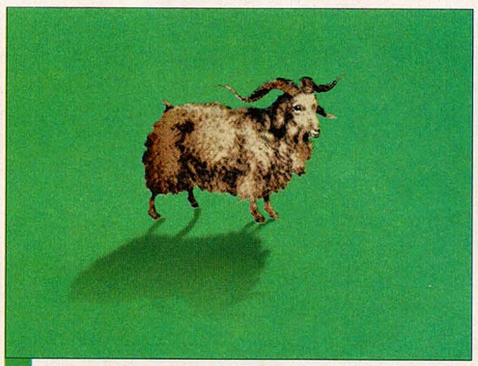
3 If you have thousands or millions of colours to work with, it's easier to produce realistic-looking shadows – we used *Studio 32* here. The shadow was placed as a plain black selection with unsmoothed edges. 'Merge' and 'Blend Edges' in the 'Process' menu provide a transparency effect, but they also act on the background area within the selection. Moving the selection means re-doing the transparency.

film canisters, table tennis balls, etc) and a cardboard silhouette of the object casting the shadow. (You can easily create this last item by printing out your image, sticking it on to some card and cutting it out.) Playing with this sort of model is a very effective way of simulating true shadows.

Brian Larkman

Where to get them

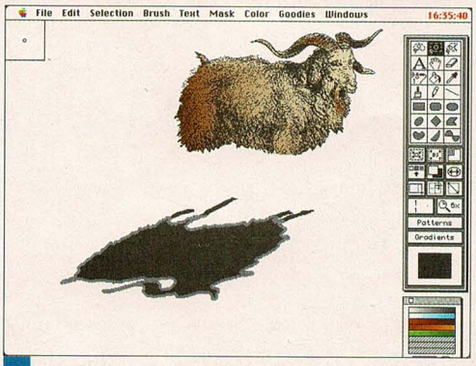
- *Studio 8* costs £233.83. Contact Electronic Arts on 0753 549442.
- Fractal Design's *Painter 2.0* costs £381.88. Contact Letraset on 071 928 3411.
- Fractal *Painter X2* costs £116.33. Contact Letraset on 071 928 3411.
- *Studio 32* costs £587.50. Contact Electronic Arts on 0753 549442.
- Adobe *Photoshop 2.5* costs £851.88. Contact Principal Distribution 0706 831831.



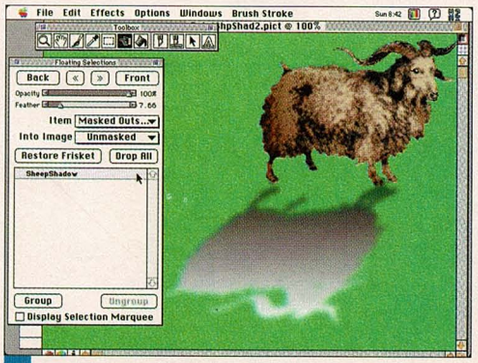
4 Using *Photoshop's* channels is far more versatile than the limited 'processing' effects of conventional paint programs, but the learning curve is steeper. The shadow effects in this image are similar to those produced by *Studio32,* but they're easier to modify because you can paint directly in the shadow's channel. This enables you to create shadows of exactly the right density and gradation.

5 This *Painter* image looks similar to the *Studio 32* and *Photoshop* creations, but its edge-feathering and transparency tools are far more interactive. 'Floating Selections' are by far the easiest way to manage shadows – especially if you have a number of objects whose casting shadows need to be positioned precisely. *Photoshop 3.0* should be equally easy to use when it becomes available.

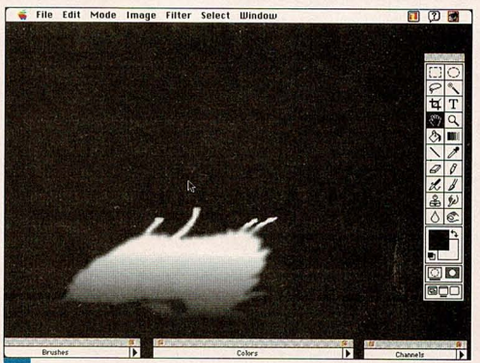
SHADOW PLAY



4 The final stage, transparency mapping, varies according to your software. Programs with limited palettes of 256 colours or less, like *Studio 8* used here, lack edge feathering and often select unsuitable colours for transparent effects. Try filling with a chequered pattern of alternate coloured and transparent pixels for the shadow, and 'TraceEdges' with a small patterned brush for a softer edge.



5 Software that uses thousands or millions of colours can produce more sophisticated variable transparencies. Feathering, which is used in *Painter X2* and *Photoshop*, and its *Studio 32* equivalent, Edge Blending, enable you to vary the transparency (over a definable band of pixels) between the background colour and the shadow colour. This gives a realistic soft edge.



6 The best software can produce shadows that fall-off in depth as they get further away from the 'casting' object. Usually the level of transparency is defined by a gradient from black (opaque) to white (transparent). In the example here, *Photoshop* has a grey-scale image of the shadow mask in one channel, while the transparency map (used to fill the mask) is made up of a a black-to-white gradient.

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There's no place like Home!

Fiddling with your Home Stack is the most dangerous thing you can do with *HyperCard*. It's also one of the most useful...

In this article, '¬' means 'this is not the end of a program line – don't press [return] yet'

All through this series we have been warning you to stay away from your Home Stack. In particular, its script. Both the Home Stack cards and the Home Stack script contain information and settings vital to the correct working of *HyperCard*. The *HyperCard* application quite simply can't work without it. And if you break it, you'd better hope you've got a backup.

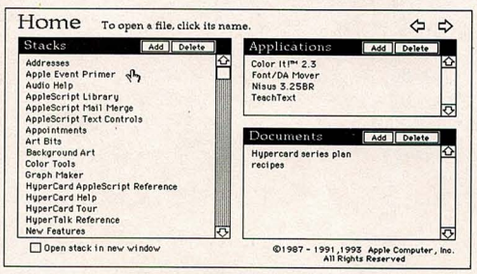
However, the Home Stack is essentially *HyperCard's* nerve centre, and you can do some very useful things with it.

Not just one Home...

To start with, you're not stuck with the Home Stack you were supplied with. *HyperCard 2.2* users have two very interesting 'alternative' Home Stacks. One of them enables you to quickly launch your favourite applications and choose your most frequently used documents from scrolling lists. Another fits in a window half the size of the standard Home Stack's.

If you have the version of *HyperCard* that was given away with Macs up until a couple of years ago, you won't have these stacks. But you can create them yourself by modifying the Home Stack you do have. The 'small' Home Stack can be created without any HyperTalk knowledge from the standard Home Stack. The stack with the scrolling stack/application/document fields is a little harder, but any half-competent HyperTalk programmer could do it with an hour or so's work.

Those two aren't the only other options, though. You could create something entirely personal instead – just take a look at the 'Rod's Home Stack' screenshot below, and you will see just what we mean.



This 'alternative' Home Stack comes with *HyperCard 2.2* and offers a quite different front-end. You simply choose stacks, applications and documents you want to open from scrolling lists, and you can add to and delete from these lists at will.

If it ain't broke, don't fix it

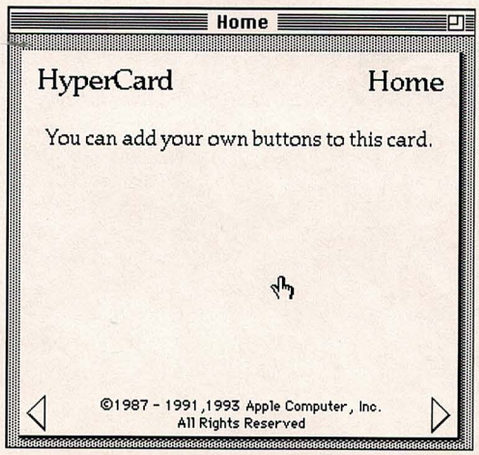
But why fiddle with the Home Stack? If its operation is so crucial, wouldn't it be best left alone? Maybe, but it's the centre of all your *HyperCard* operations. When you hit [command] H (or select 'Home' from the 'Go' menu), you go to the first card in your Home Stack. This card loads when you double-click on the *HyperCard* application icon. And every single HyperTalk message sent (or that you send) passes through the Home Stack script.

HyperCard isn't just an amazingly versatile database-cum-programming-language, though, it also has the potential to be the nerve centre of all your Mac operations. Every stack, application and document can be opened from within *HyperCard*. And you can organise their names in the way that most makes sense to you – rather than the way the designers of the Mac Finder dictate. Take a look at the screenshot of the alternative Home Stack with the scrolling lists of names (below left) to see one possible way of doing it.

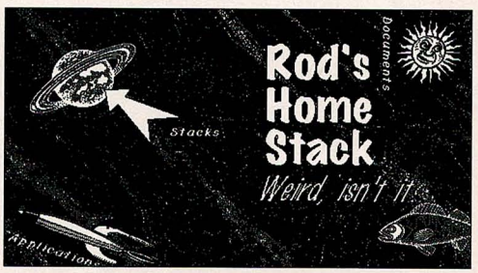
HyperCard's designers have made it easy. The Home Stack has an additional menu simply called 'Home'. It has options for adding links to stacks, applications and documents that make the process as easy as it can possibly be. All you have to do is choose which type you want from the menu, find the file via the standard Mac file-finding dialogue box, then position the button that *HyperCard* automatically creates. (The alternative Home Stack with the scrolling text fields simply adds the name to the relevant list rather than creating a button.)

The standard Home Stack has three blank cards for you to add your own buttons to. You can then re-name these cards and the new names will appear on the buttons at the bottom of the screen. For more details on how you would add a button to provide a link to another stack, see the 'Linking stacks' box (page 68).

With the introduction of System 7, *Hyper-*



If your Home Stack's taking up too much screen space, you can use this version, which comes with *HyperCard 2.2*, but it's easy to create from the standard Home Stack – you don't need any script changes, just a little tweak here and there.



Without any programming knowledge it really is quite simple for you to create your very own Macintosh interface by customising a Home Stack card and re-ordering it to be the first card in the stack.

READERS' LETTERS - CARD PROTECTION

Scott Love and Ross McCulloch have a problem keeping their cards safe from prying eyes. Not because they contain sensitive information, but simply because they form part of a game...

'We've written a game using simple *HyperCard* scripts. We spent ages on it and it's now finished. The scripts all work perfectly, but there's a problem that makes the game pointless – the arrow keys can be used to move through all the cards to the end of the game.'

Well, yes, that is a problem... unless you do a bit of a hatchet job on the stack's script.

You need to do two things:

First you need to disable the keyboard's arrow keys. This is pretty easy, because every time an arrow key is pressed the following message is sent: arrowKey [direction]. Simply intercept the message to stop it dead in its tracks:

```
on arrowKey
  beep
end arrowKey
```

The 'beep' tells users not to be so sneaky...

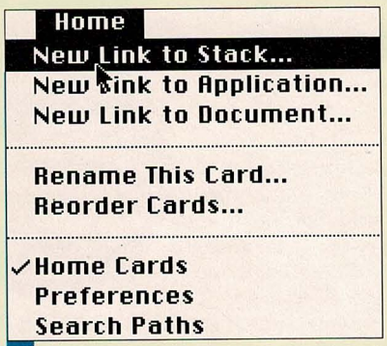
Second, you need to disable the Go menu. That's even easier. All you have to do is add this to the stack script:

```
on openStack
  delete menu "Go"
end openStack
```

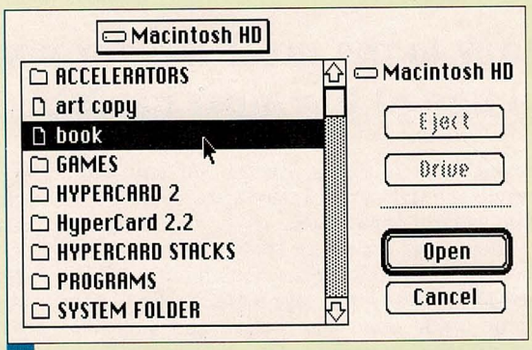
Users now have no way of getting around the stack, except via any buttons you set up specially to link one card with another.

LINKING STACKS

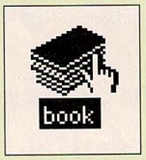
Here's how you would add a button to provide a link to another stack.



1 Choose 'New Link to Stack...' from the Home menu...



2 ... Choose the stack you want to link to via the standard Mac file-finding dialogue box...



3 ... And a new button is generated. This button is highlighted and follows the cursor round the card until you click where you want to place it.

Card's ability to launch applications and open other files through them is less useful, but under System 6 it's a godsend. Especially because when you quit the other application, you return to *HyperCard* at the place you left it.

With a little imagination – and zero scripting knowledge – you can turn your Home Stack into something far more personal, more useful and more friendly than the standard document.

Be gentle!

The Home Stack script needs very careful handling. *HyperCard* wears its heart on its sleeve – the code of most applications is buried deep in utterly impenetrable files, but *HyperCard* owners who can use a button and the delete key can easily reach and wreck reams of HyperTalk code that is crucial to *HyperCard's* operation. More experienced coders can modify the Home Stack script pretty safely, but don't do it if you don't really know what you're doing.

Thoughtfully, the original programmers have documented the code in the Home Stack script. At the start of the script you'll find lists of handlers and variables used. Check these lists to make sure that your code doesn't use any of the same handlers or variables – if they are intercepted before the Home Stack and not passed, the relevant routine in the Home Stack won't work, and it could be something crucial.

Having done that, you can start adding code. The Home Stack script is an excellent place to put handlers. Why? Because, as explained earlier, all messages pass through it. This means you can set up a handler like this in the Home Stack script.

```
on mouseDown
  play harpsichord c7
  pass mouseDown
end mouseDown
```

Now, every time you depress the mouse key in any stack, *HyperCard* will play a short note, like a click. (Well, it won't if you click on an object with a **mouseDown** handler of its own, without a **pass mouseDown** instruction, but that is a rare occurrence.) This is a very simple way of producing an audible mouse-click.

Or, more ambitiously, you might want the telephone numbers of your business colleagues available at all times. One way of achieving this is to have a 'contacts' stack open all the time and simply to go to it. Another is to create a scrolling field on one of your Home cards and

ANATOMY OF A HOME STACK

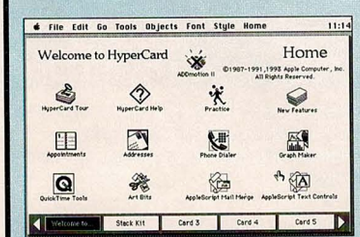
Before you do anything with your Home Stack, you need to know in more detail what it does...

First, it stores global *HyperCard* settings, like your preferred user level (the last card in the stack).

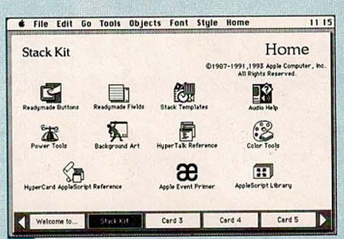
Second, it stores search paths so that *HyperCard* can 'remember' where to find applications, stacks and documents you set up buttons for (the three cards before the last).

Third, it enables you to access the other stacks supplied simply by clicking on buttons; it also enables you to add your own buttons for stacks, applications and documents.

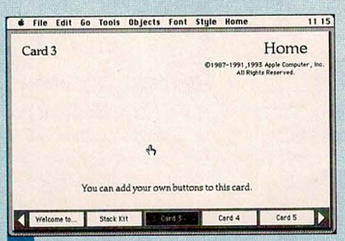
All Home Stacks do this, even if the layout differs. And providing you don't delete crucial cards or buttons, your own Home Stack can be re-sized and re-designed to do just about anything you want. But just so you know what you're starting with, here's every card in *HyperCard 2.2's* standard Home Stack. There's nothing here you won't find in the Home Stack of *HyperCard 2.1*, or even version 2.0.



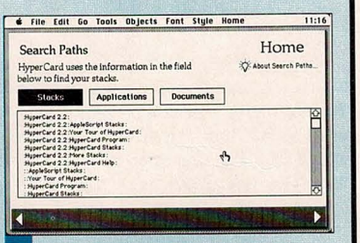
1 You see Card 1 when you launch *HyperCard* by double-clicking on the Home Stack or the *HyperCard* icon...



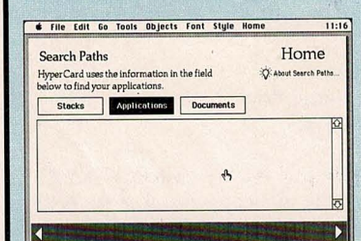
2 It has many buttons to take you to the other stacks, but card 2 offers more tools for stack development.



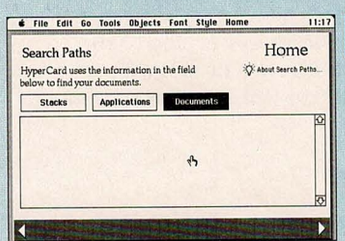
3 Cards 3, 4 and 5 are left blank so you can add your own buttons to link to other stacks, applications or documents.



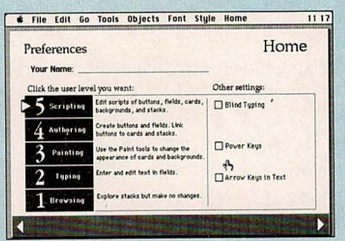
4 Card 6 is the first of three that store the search paths for all the files you have linked together. This handles stacks.



5 Card 7 contains search paths for any linked applications...



6 ...while card 8 details links to specific documents.



7 Card 9 is crucial. It contains the user-level setting, together with three options to make life easier for HyperTalk programmers.

store all your names and numbers there. Then handlers in the Home Stack script will let you recall details from any other stack, without having to modify those stacks.

How? Like this. First you need to add this line to the Home Stack script's startUp handler:

```
phoneList
```

This will activate the following handler, which is placed at the end of the Home Stack Script.

```
on phoneList
  global phoneList
  put card field "contacts" of card 1 into phoneList
end phoneList
```

This handler sets up a global variable and puts the entire contents of your 'contacts' field into it. Now you need a handler that will recover the details you want, when you ask for them. Something very similar to this, in fact:

```
on getno name
  global phoneList
    repeat with i=1 to the number of lines in
phoneList
    if name is in line i of phoneList then
      put line i of phoneList
      exit repeat
    else
    end if
  end repeat
end getno
```

This will cycle through all the lines in your telephone list, looking for the one with the details that you want before putting them in the message box. To use this handler, simply call up the message box in any stack and type:

```
getno [name]
```

The beauty of this is that none of your other stacks need modifying and, as long as *HyperCard* is running, you can get this information via the message box.

The handlers above are a little bit crude, but they are effective and they do demonstrate the point. If you fancy experimenting with them to make them more efficient, go for it. And, if you have any luck, send in your results and we'll print them in MACFORMAT.

These are just simple examples of what you can do with your Home Stack script. Because every single HyperTalk message passes through it, you can write routines and functions that work with all your stacks, without further modifications – no stack sharing, no special menus. The downside is that you can easily upset the Home Stack script if you're a novice HyperTalk programmer – and even if you're a more experienced one. The voice of experience? Oh no, not me...

So make sure you don't edit what's already there unless you have to. Do not, under any circumstances, play around with routines you don't understand. You should also check to make sure you're not using handlers that are already in use, and that the variable and function names don't clash with any others.

Do this and you should be OK. But always, always keep a 'clean' backup of your Home Stack. You can't re-build a new one from scratch, any more than you could re-build the *HyperCard* application it-

Next month in the HyperCard series...

So far in this series we have concentrated on things that you can do with the 'free' version of *HyperCard* that was given away with many Macintoshes up until a few years ago. We've covered how HyperTalk works, commands and variables, and how you can use *HyperCard* to make your Mac do what you want. The full commercial version offers quite a lot more, though. Just how much more you'll find out next time...

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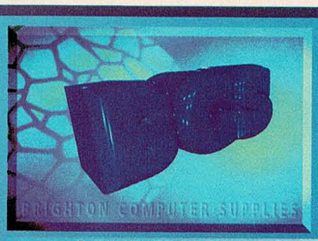

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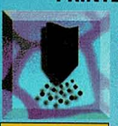

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Giving your pages the Works

You don't need a high-end DTP program to create polished pages – *ClarisWorks* does it all.

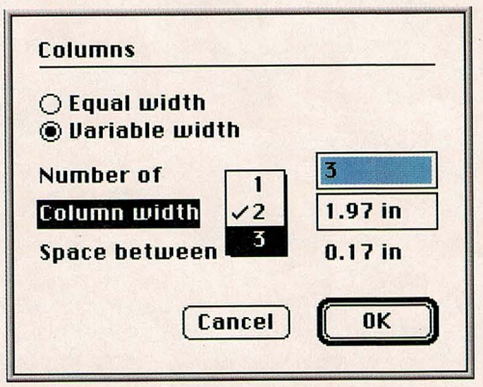
Not many people believe it, but it's true. You don't need *QuarkXPress* or *PageMaker* to lay out pages. With a bit of imagination and a few handy tips, you can do it just as easily using *ClarisWorks*. In fact, there are two ways of setting up a page in *ClarisWorks*. For a quick and crisp page, the simplest thing is to use the word processing method; if you want something that's more professional-looking and intricate, it's best to use the drawing mode (which is called 'graphics' in *ClarisWorks 1*).

Before you start, you need to do some page planning, so decide how you ideally want your page to look (see MACFORMAT 9 for some hints). If necessary, make some rough sketches of your page layouts on a scrap of paper first, then place your headlines, illustrations, subheadings, captions and so on. It's usually easier if you have your articles written before you try to set out your pages.

Word processing method

The first thing you should note here is if you are using *ClarisWorks 1*, you won't be able to lay out a page using the word processing mode because it doesn't have a columns function. So, in this instance, skip to the tips under the 'A more professional page' header.

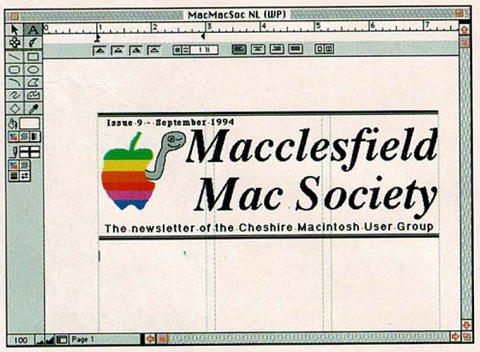
1 Now that you're ready, open a word processing document and we'll begin. First, you have to set columns. For evenly-spaced pre-set columns all you have to do is click the column buttons in the text tools bar at the top of the page. But if these don't suit your needs, use the 'Columns' option in the 'Format' menu and set them yourself. This is handy for uneven column widths. One thing you should remember is that the pre-set margins are quite wide: one inch on each side, top and bottom. So you might need to adjust these using the 'Document' option in the 'Format' menu. If you do, *Claris* will re-jig the pre-sets automatically, but if you've set your own, you'll have to readjust them yourself.



The first thing you need to do is set up the columns as you want them – with either equal or variable widths.

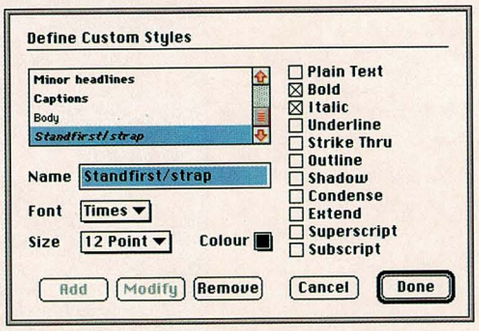
2 And now the fun begins. Now you've set the columns for your publication, you need to design a header for your front page. Select the 'Show Tools' option from the 'View' menu to access the drawing palette. To place your header, any headline, or other non-body text, move the cursor to where you want it to go, hold down the [option] key, and drag the cursor across the screen to create a text frame. You can re-shape or move this around the page just like a graphics object by clicking the tool bar arrow and selecting the text box.

Whenever you introduce free text frames or graphics objects, you need to use *ClarisWorks'* 'Text Wrap' option. That way, when you introduce your body text it won't cover up the objects or frames. In order to do this, select (or [shift]-select) the various objects, then activate 'Text Wrap' (under the 'Options' menu) by choosing 'Regular' or 'Irregular'.



We've set up our header. The apple and worm graphic is a paint frame we've pasted in. To get rid of the border, choose 'None' under Pen Thickness while the frame is selected.

3 If you're going to produce something like a newsletter or small fanzine on an ongoing basis, you might want to keep your general page design as stationery and maintain a set of text styles for different purposes. To set these, you need to use the 'Define Styles' option, which you'll find under the 'Style' menu.

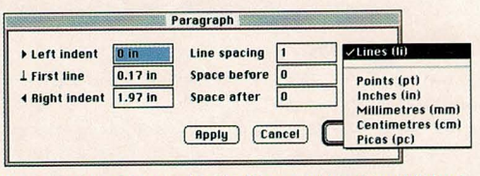


It's useful to set styles for the page furniture and stick to them. But don't worry if you change your mind about the fonts, sizes and styles, they can be modified easily.

Forget *QuarkXPress* and *PageMaker* – *ClarisWorks* can create classy page layouts with the best of them.

Once your styles are set and you're relatively happy with your header, [shift]-select all the objects that you want to keep as they are, then 'Group' and 'Lock' them using the 'Arrange' menu – but don't 'Lock' anything that you might need to change issue by issue. By grouping and locking these objects, you won't be able to accidentally mess them up later. Now you can save your master page and styles as stationery, ready to be loaded whenever it's time to publish again.

4 You're now in the flow of things, and it's time for you to put the body text on to the screen. To do this, open your story, copy it, and paste it on to your page. Keep the text selected and style it up using your pre-set styles. You can set the paragraph indents and line spacing using the 'Paragraph' option in the 'Format' menu (or you can double-click on the spacing indicator). Spacing can be set in lines, points, millimetres, centimetres, inches and picas, but a curious glitch in the program means that text will jump further away from 'Text Wrap' objects if you use anything other than the pre-set spacing. If you have *ClarisWorks 2.1*, you can turn on 'Auto hyphenate' from your 'Writing tools' – this is invaluable, particularly when you're working with narrow columns.



Shape your body text using the 'Paragraph' options. It's best to stick to the pre-set line spacing, but you can adjust it in points, inches, picas, centimetres or millimetres if you like.

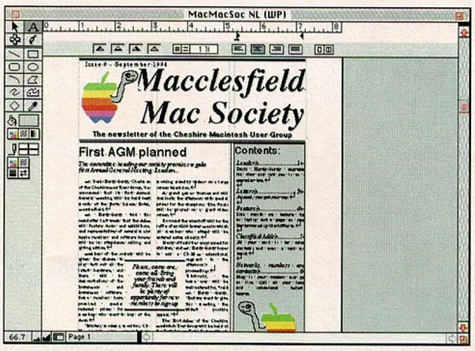
5 With the text in place, you can now give your article a headline and standfirst (or introduction) if necessary. You can do this in the same way you set up your header: by holding down the [option] key and dragging the cursor across the screen to create a text box. Again, keep Text Wrap on and style your headings using your predefined styles.

MacMacSoc NL (WP)
Issue 9 – September 1994
Macclesfield Mac Society
The newsletter of the Cheshire Macintosh User Group
First AGM planned

With your text shaped and styled, a headline and maybe a standfirst in place, the page is getting a professional look.

6 Now you've almost finished. All that remains for you to do is to fit the text into its column space. If it's too long, you can cut out anything superfluous. But if it's too short, you have to add a few sentences to pad it out to the correct length.

When the story fits, it's time to move on to your next one, and to the next column. You can make a column break by placing the cursor at the end of the article and pressing [enter], or by selecting the 'Insert Break' option in the 'Format' menu. Complete the page by filling it with text and pictures.



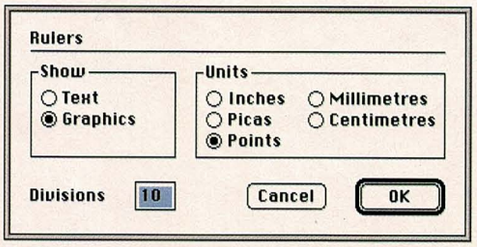
The page is now packed with valuable information and attractive illustrations. You've finished. Now, who said you couldn't do that using *ClarisWorks*?

A more professional page

You can use *ClarisWork's* drawing mode to lay out your page with an even greater degree of accuracy. Just follow the next six steps for a point-perfect design.

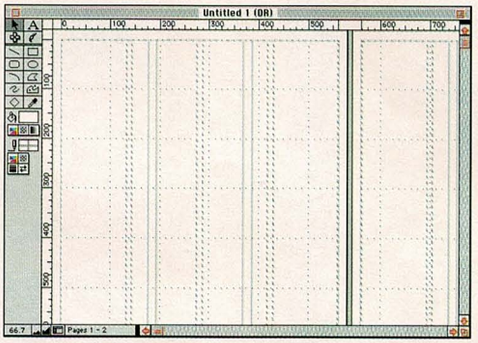
1 First, open a 'Draw' document and set 'Rulers' to points for greater accuracy when sizing and moving text and graphics.

2 As there are no text columns in the drawing mode, you must set your own. The best way to do this is to draw a column grid and save it as stationery. A good grid to use is a three column one (175 points wide with 17 point gutters between them). Alternatively, you could use a four column grid with gutters



Set the rulers to points with ten divisions. Now you can move objects point by point to line things up perfectly.

of 12 points and columns measuring 131 points. You can draw these with the box tool and colour them a light grey or blue with a transparent fill pattern (this shading will enable you to see them clearly throughout your layout process). To size them as accurately as possible, you can set the magnification to 400 or 800 and follow the rulers. When your grid's perfectly in place, use the 'Group' and 'Lock' option under the 'Arrange' menu. For multi-page grids you can enter the number of pages you want using the 'Document' option under the 'Format' menu. Then turn off 'Lock' and duplicate your grid using the 'Duplicate' option in the 'Edit' menu. When your grids are in place for each page, you can lock everything again.

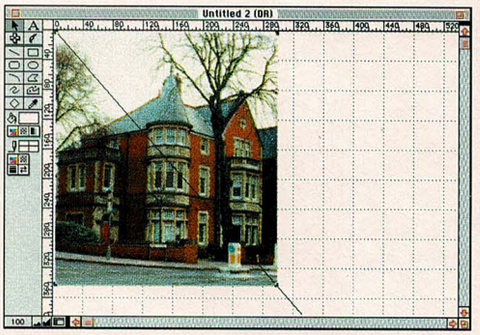


Here we've set three and four column grids in the same document. To judge how much white space is on the page, we've selected the 'Page view' option from the 'View' menu.

3 In order to import your body text, you need to create text frames (use your grid as a guide). Paste in your text, shape and style it using the 'Paragraph' and 'Define styles' options. You can use the 'frame links' option under the 'Options' menu to flow text from one column to the next.

4 Now you can construct the rest of your page using the same methods as described above in the word processing method. You can use 'Text Wrap' for objects that cross or sit between columns, but it is sometimes easier to size and manipulate the linked frames around the objects. *ClarisWorks 1* hasn't got a Text Wrap function, so if you're using that version you'll have to shape text frames around the other objects.

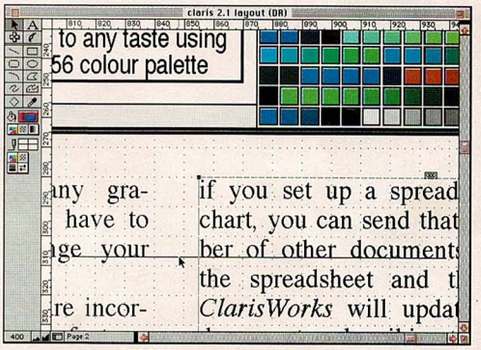
5 Getting pictures to fit into your column grid neatly can be tricky. You need to scale them accurately so they don't look stretched or squashed. The easy way of doing this is to paste a picture into the top-left corner of another 'Draw' document. Draw a straight line from the top-left to bottom-right corner, and drag the picture's corner up or down along the line, scaling it to the width you need.



To get a picture to the right size, draw a line diagonally across it then, following the rulers, scale it to size. Then all you have to do is delete the line and paste in the picture.

6 Finally, you'll need to make sure all your text lines up perfectly. To help you do this, you can magnify your work by 400 or 800%, and move each text box up or down, so the lines within each column also line up across the page. If you're feeling particularly uncertain in your judgement, you can draw a line across the page as a guide and delete it when you've finished. When your page is finally set out, all you have to do is turn off your grid. Click on it, select 'unlock' and change the grid colour to white – it disappears – and you're ready to save and print.

Garrick Webster


claris 2.1 layout (DR)
to any taste using
56 colour palette
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chart, you can send that
ber of other document
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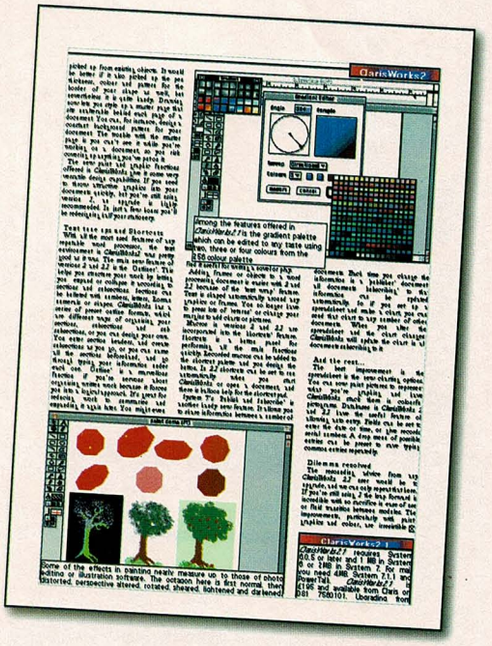
ClarisWorks will updat

Before you're done the text needs to line up perfectly across the page. Draw a line, and move the text boxes up or down until everything matches up neatly. Then delete the line.



At last, a page you can be proud of. And you know what they say: an ounce of image is worth a pound of performance.

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PUBLIC APOLOGY

M.D. OFFICE SUPPLIES WOULD LIKE TO TAKE THIS OPPORTUNITY TO APOLOGISE TO ALL ITS COMPETITORS IN THIS MAGAZINE, AS EVER WE SHALL BE OFFERING OUR SUPERB RANGE OF MAC ACCESSORIES AT UNBELIEVABLY LOW, LOW PRICES. YOU CANNOT BUY BETTER OR CHEAPER.

First Person Donald A Norman

When is a corkscrew not a corkscrew? When it doesn't work.... Design guru Don Norman analyses the form and function of everday objects.

In this custom-built world of ours, where much of what we see and touch is man-made, good design is vital. By this, I don't mean how lovely an object looks, but how well it does its job – and how easily we're able to learn to use it.

Donald Norman has spent years looking under the surface of everyday things to see how they work, and how we work with them. Let's take an obvious and infamous example: the corkscrew. How often have you been handed a corkscrew and not had the faintest idea how you were supposed to use it?

What's happening here, apart from the effect of alcohol, is bad design: the function of the object is not clear. This is sometimes true even after you've been shown how to use it.

This *First Person* CD-ROM, which reproduces the text of Norman's three books, deals with the psychology of design, adding video clips of the author to spice things up a bit. These clips preface and complement the text, making it less intimidating to dive into.

Do make a point of getting stuck into these reams of text, though, because the questions raised in your mind as you watch Norman and read his thoughts are especially relevant for CD-ROM and computers. Both are becoming ever more widespread in all our lives – including the lives of those people who, for whatever reason, haven't yet been part of the personal computer revolution.

Map
Page
Find
Mark
Back Track
Highlight
Clear
2 The Home Magazine Kitchen
THE BOOKSHELF
One person was even an engineer who worked for the same company that made the refrigerator.
And what about the need for electric outlets? You would think that any modern kitchen designer would understand the need for sufficient outlets, or for room to store all those appliances, a place to put them during use. No, I think that designers try to make everything look good. And outlets are simply not thought of as a part of the kitchen. Outlets are for the electricians to worry about. But electricians do what they are told to do, and if nobody tells them how many outlets to put in, they will follow the electrical code, which probably specifies two outlets per wall, regardless of whether it is a kitchen or a bedroom. Design neglect.
THE PROPER WAY TO DESIGN
The proper way to design anything is to start off understanding the tasks that are to be done and the needs of the users. In a
Cooking in the Dark
Don Norman Demonstrates Good Design
kitchen, don't start with the appliances and counters, start with the people and their needs. This is how all things should be designed, not just kitchens.
What do we do in the kitchen? It isn't hard to discover: just observe some families. Patterns probably differ depending upon the kind of family, but I suspect that there are not that many different kinds of usage
347

It's like having a book but better. You can highlight important sections of the text and even fold the corner of a page you'd like to return to. You can't put your coffee mug on it, though.

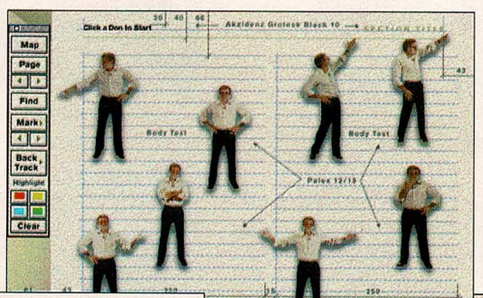
What Norman effectively does here is take a step back from all the enthusiasm for computers generated by marketing people and Mac owners – the ones who are telling the rest of the world how essential this technology is – and asks how right they are. Is there a better way in which these machines could be used?

The camcorder is a prime example of poor use of technology, according to Norman. Many camcorder users are so preoccupied with the process of committing their lives to video that they're missing out on the full richness of the experiences they're filming. Their lives are serving the technology, rather than the other way round.

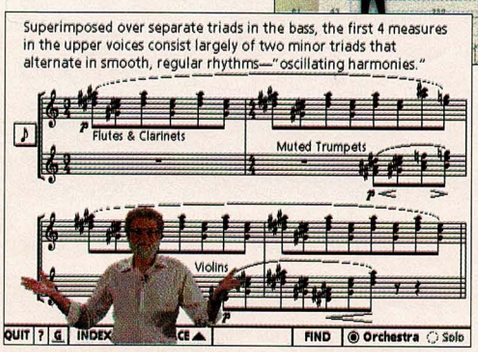
The solution to this problem, Norman suggests, is to design objects in such a way that people don't have to think about how to use them. Technology needs to be invisible in your mind, he says. Until it ceases to be a stumbling block, you can't enjoy the message because you're frustrated by the medium.

We're fortunate that the Mac is currently the definitive user-friendly computer, which means you can concentrate fully on this beautifully-polished CD-ROM. But Norman has a message even for us: he says that the Mac needs to be improved even further so that *everyone* can enjoy its benefits.

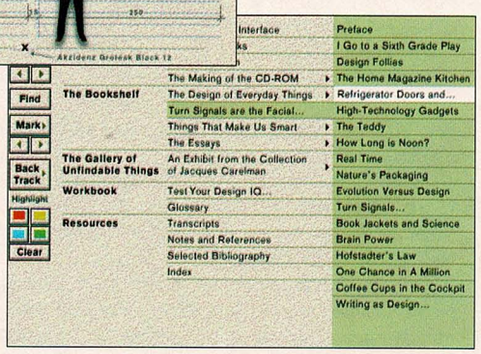
Richard Hill



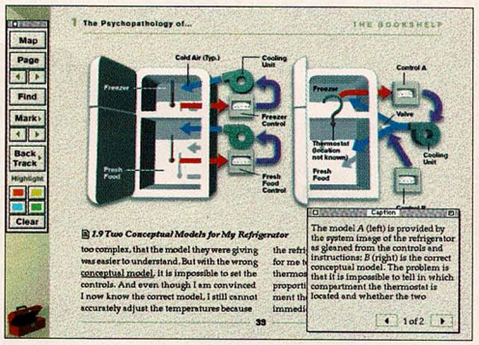
Click on Don to start! Aspects of the CD-ROM's design are described here, including the toolbox on the left.



Don Norman talks about CD-ROM design at length. He cites this music program as a good example.



You can call up the Contents at any time to move around the CD-ROM. Unfortunately the list obscures the screen.


Map
Page
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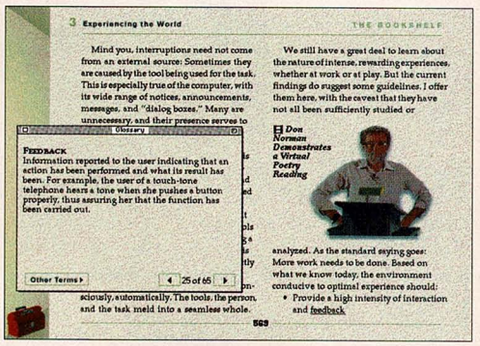
Back Track
Highlight
Clear
1 The Psychopathology of...
THE BOOKSHELF
Cold Air (Typ.)
Cooling Unit
Freezer
Freezer Control
Fresh Food
Fresh Food Control
Control A
Valve
Thermostat Definition not known
Cooling Unit
1.9 Two Conceptual Models for My Refrigerator
too complex, that the model they were giving was easier to understand. But with the wrong conceptual model, it is impossible to set the controls. And even though I am convinced I now know the correct model, I still cannot accurately adjust the temperatures because
The model A (left) is provided by the system image of the refrigerator as gleaned from the controls and instructions; B (right) is the correct conceptual model. The problem is that it is impossible to tell in which compartment the thermostat is located and whether the two
1 of 2
39

Illustrations and video clips dotted throughout the text make the design ideas easier for the layman to understand.


3 Experiencing the World
THE BOOKSHELF
Mind you, interruptions need not come from an external source: Sometimes they are caused by the tool being used for the task. This is especially true of the computer, with its wide range of notices, announcements, messages, and "dialog boxes." Many are unnecessary, and their presence serves to
We still have a great deal to learn about the nature of intense, rewarding experiences, whether at work or at play. But the current findings do suggest some guidelines. I offer them here, with the caveat that they have not all been sufficiently studied or
Glossary
FEEDBACK
Information reported to the user indicating that an action has been performed and what its result has been. For example, the user of a touch-tone telephone hears a tone when she pushes a button properly, thus assuring her that the function has been carried out.
Other Terms
25 of 65
Don Norman Demonstrates a Virtual Poetry Reading
actously, automatically. The tools, the person, and the task meld into a seamless whole.
analyzed. As the standard saying goes: More work needs to be done. Based on what we know today, the environment conducive to optimal experience should:
• Provide a high intensity of interaction and feedback
563

If a word is underlined, as in the bottom-right corner, you can look up an explanation in the Glossary.

DONALD A NORMAN

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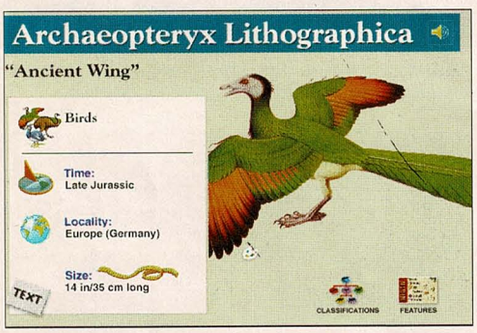
MACFORMAT RATING 87%

Prehistoria

Long before we showed up, dinosaurs ruled the Earth. We know because our Editor told us!

You would have thought everyone would be fed up with dinosaurs after *Jurassic Park*. When you've seen one T-Rex you've seen them all, and you start counting big lizards like sheep... Yawn! But Grolier's latest CD-ROM sets out to show that there's no such thing as monster fatigue.

Prehistoria uses text, video clips and a selection of illustrations and graphics to give you a basic guide to the animals that lived on Earth over the last 500 million years, including our primate ancestors. The core of the presentation is an encyclopedic display of page after page of creatures of all types and descriptions.

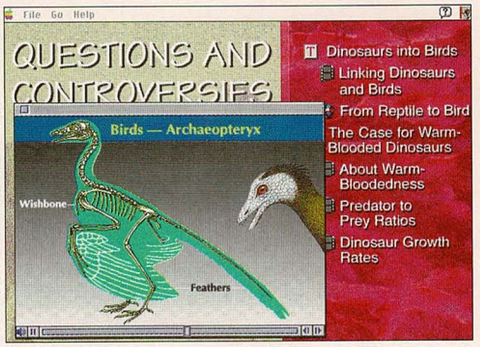


Pictures show scientists' interpretations of living dinosaurs – a big improvement on fossilised bones and bits of old rock.

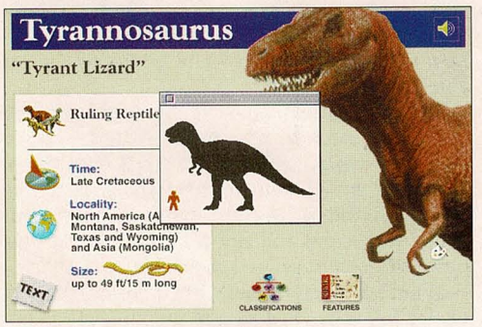
Each page shows you what each individual creature looked like, and its name is spoken out loud when you click on the loudspeaker icon. If you've been wondering how to pronounce 'Thecodontosaurus', here's your chance to find out. You can also see where in the world it lived, what size it was compared to a human, and get information on how it lived.

You can browse randomly through the pages, or choose from several ways of searching for the entry you want. The best method is to use the Gallery. This takes you through illustrated classes of animals until you narrow down the range to one. A strong alternative is the Time Tracker. Using this, you can choose a creature to read about, based on when it lived and what sort of animal it was.

While most of the information comes from these pages, it's the Grolier Museum section that really catches the eye. Here there's a floor-plan of the museum, with a range of subjects to choose from. Each room whisks you to a menu of topics. You can read ordinary text, or often there's a video clip to watch. These clips bring



Narrated animations like this look at the ancestors of birds and work so well that you're left wanting more.



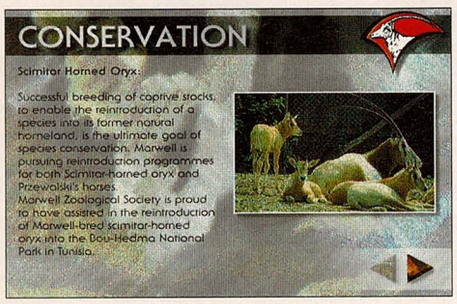
How big was a Tyrannosaurus Rex compared to a human? Er, big, as a click of a button reveals in *Prehistoria*..

Behind The Scenes:

The Zoo

A double CD-ROM tour of Marwell Zoo – but where's Johnny Morris when you need him?

Reality has a habit of catching up with the future faster than you think. Remember when CD-ROMs first arrived on the scene and few people could see how anyone could need that much space for data? Now MACFORMAT has cover CD-ROMs that are chock-full every month, and here, from MDI, is a program that needs two CD-ROMs to fit everything on.

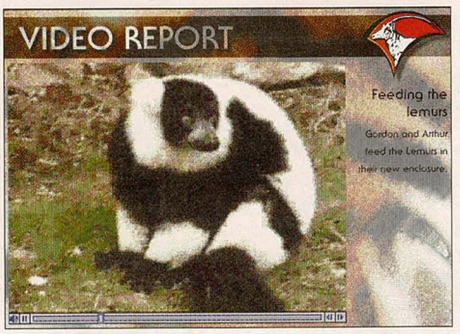

CONSERVATION
Scimitar Horned Oryx:
Successful breeding of captive stocks, to enable the reintroduction of a species into its former natural homeland, is the ultimate goal of species conservation. Marwell is pursuing reintroduction programmes for both Scimitar-horned oryx and Przewalski's horses. Marwell Zoological Society is proud to have assisted in the reintroduction of Marwell-bred scimitar-horned oryx into the Bou-Hedma National Park in Tunisia.

An imaginative touch is the inclusion of some info on Marwell's conservation work. Pity there wasn't more.

The Zoo is the first in a planned series of documentaries called *Behind The Scenes* – which is as self-explanatory a title as you're likely to get. You go, um, behind the scenes at various places – in this case, a zoo.

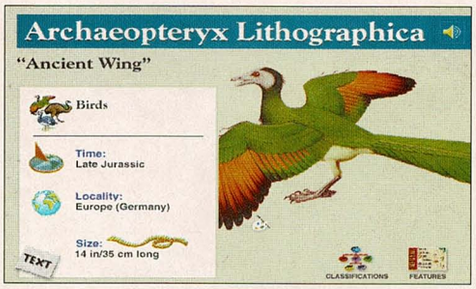
What happens is this: the program uses video clips and illustrated text to take you through a day in the life of the animals and staff of Marwell Zoo.

Despite the presence of many encyclopedia pages on the park's occupants, *The Zoo* relies mostly upon video footage, giving the program a reassuring feel of a TV documentary. The difference offered by CD-ROM is that you can view the video clips in any order you want. For a while this has some novelty value, but once that's worn off it's hard to see what the

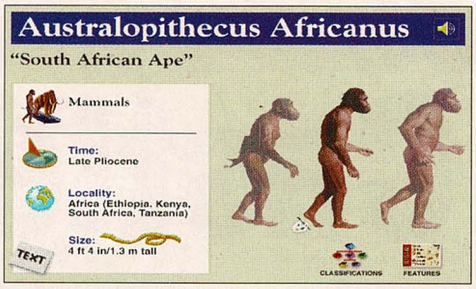


You can watch the animals in action throughout the day in hazy-blocky-video-scope. Just like being there, eh?

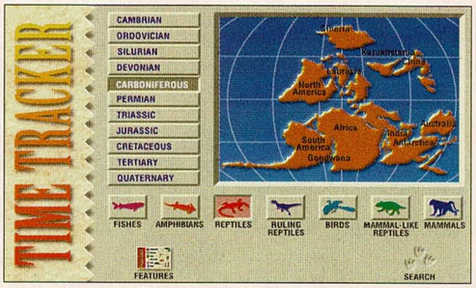
There's a selection of video clips, taken from a whole day at the zoo. But who wants to see *Mucking out the giraffes*?



Video clips take you behind the scenes to discover how scientists jigsaw-together bits of information from fossils.



There's more than dinosaurs in *Prehistoria* – this particular specimen went on to a successful career in advertising.



With the Time Tracker, you can look for a type of creature from any time period – and see how the Earth looked then.

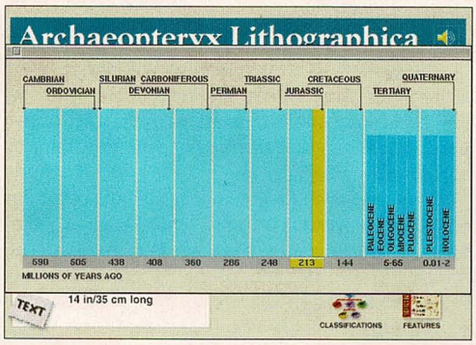
scientists into the guide, showing you how they do their research into fossils and the like. Unfortunately, though, the clips suffer from the usual technical shortcomings – the picture quality is too blocky to make watching a lot of clips in one sitting much fun. But the insight into how the information at your fingertips was gathered is fascinating.

Another impressive part of this program is what Grolier calls Knowledge Explorer essays. These simple narrated animations, made especially for the computer, work so well that you'll wonder why they aren't far more widely used. As the narrator takes you through the subject, illustrations appear and transform, with text pointing out particular points of interest.

Prehistoria is a solid piece of multimedia, but it doesn't set the flames of inspiration alight. Nevertheless there's real potential in its use of educational animations.

Of course, there are problems. Even when the quality of computer video becomes more acceptable, it's still going to use up a lot of disc space. And there's a creative question: can a compilation of video clips on CD offer anything more than a cheaper video tape? In a word, yes. *Prehistoria* is a pretty good demonstration that computer animation, when it's blended intelligently with text and sound, can really capture the imagination.

Richard Hill



Can't tell your Jurassic from your Cretaceous? *Prehistoria* shows you how the different time periods slot together

PREHISTORIA

Price: £69.99. Out: now.
Requires: LCII or higher, System 6.0.7 or later, 4Mb of RAM, a 13-inch colour monitor and a CD-ROM drive.
For more details contact Mindscape on 0444 246333

Features 82%
Excellent animated essays and tonnes of search functions.

Ease of use 84%
A superbly integrated variety of sections.

Value for money 75%
A good program, but prices elsewhere are coming down.

MACFORMAT RATING 80%

A video tour of Marwell Zoo is the highlight of this double CD-ROM. That little red dot is your car on its way round.

real, long-term benefit is. It's not as if it's a real day out, and you've got a tearful child on the end of your arm demanding to be taken to see the lions and tigers *now*. Hmm, maybe primary schools would find it useful?

One of this program's most distinctive sections is the 'Tour'. This involves a lengthy trip around the zoo's grounds with an accompanying map screen – so you can see exactly where the car is as it progresses through the zoo.

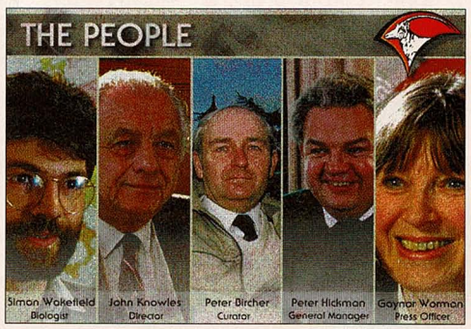
The 'Place' section has a second map. You can use this to zoom in on a particular animal that's kept at a certain point.

Unfortunately, these two sections don't work closely enough together. It would have been nice to be able to stop the video tour and zoom in to read information on the giraffe you'd just passed, for example.

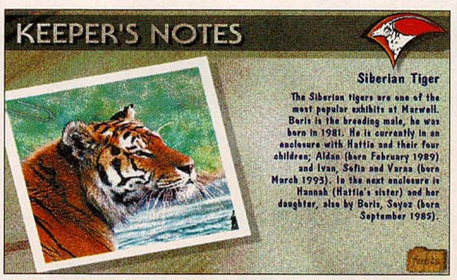
Instead, the sheer bulk of information in *The Zoo* – enough to fit on two CDs – works against the program. Presumably because of the size of particular sections, the Tour section is on a different CD-ROM from the Place section. To move between them, you have to quit one program, eject the CD, load in the other CD and run the program again. It's a bit of a pain, to say the least. Future double-CD-ROM sets will need to approach the problem of moving between sections more thoughtfully to create a smoother ride.

With its wealth of material to browse through, *The Zoo* scores highly on value for money, but as a CD-ROM, it adds little to your experience of its subject that couldn't have been gained through books and TV. To succeed fully, CD-ROM really needs to become a medium that offers something that no other single format can.

Richard Hill



You can watch interviews with a variety of employees at Marwell, finding out what they think of their work.


KEEPER'S NOTES
Siberian Tiger
The Siberian tigers are one of the most popular exhibits at Marwell. Boris is the breeding male, he was born in 1981. He is currently in an enclosure with Hattie and their four children; Aldan (born February 1989) and Ivan, Sofia and Varan (born March 1993). In the next enclosure is Hannah (Hattie's sister) and her daughter, also by Boris, Soyez (born September 1985).

You can read notes on all the animals kept in the zoo. The icon in the top-right corner takes you on to the next part.

THE ZOO

Price: £39.99. Out: now.
Requires: any colour Mac with System 6.0.7 or later, at least 4Mb of RAM, at least a 13-inch monitor and a CD-ROM drive.
For more details contact MDI on 0252 737630.

Features 75%
All the basic search and viewing functions are here.

Ease of use 76%
A friendly approach that lacks finesse. But switching CDs is a pain!

Value for money 71%
The material is plentiful, but doesn't use the potential of CD-ROM.

MACFORMAT RATING 75%

King Arthur's Magic Castle

This set of simple games for kids uses the legends of King Arthur – sort of.

Encourage your child to use the Mac's mouse with this colourful and engaging animation screen.

The castle reveals its secrets; click here to see a cartoon on what the drawbridge does.

Explore the dungeon beneath Arthur's castle and encounter all sorts of creatures.

The mist-shrouded, romantic tales of Arthur Pendragon will be the last thing on your mind after you've played with this CD-ROM for a few minutes. Games and interactive drawings form a set of activities for young children, but there's nothing here to hold a kid's attention for long.

You can find out about the different parts of a castle by clicking on different areas of a drawing, but, sadly, a brief spoken explanation and a cartoon showing you that area are your only rewards. The sophistication of the info here is not bad for the young, but, as with the other parts of the program, there isn't a lot to it.

Merlin's Tower gives you a single-screen drawing with lots of objects to click on, each one offering a short animation. This is good mouse practice for an inexperienced toddler – but only one screen?

The Dungeon takes you to a 3D maze filled with things to find and weird and wonderful creatures to meet. It's quite good fun and not too threatening. This is the strongest part of the program, although it's really best suited for an older age group than Merlin's Tower.

The joust is a thin exercise: you move your mouse up and down to keep your cartoon knight's lance straight so he can beat his opponent. It's really far too fiddly and pointless to bother with, though.

King Arthur's Magic Castle may be useful for acquainting your youngest child with a Macintosh, encouraging him or her to use the mouse. The child will probably enjoy the experience, although there's so little here that he or she will soon get bored and move on. And, after all, the program has nothing to make anyone want to return to it.

Richard Hill

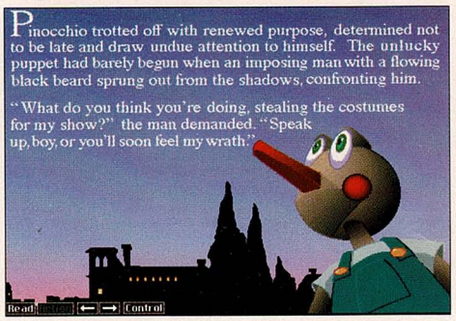
■ **Price: £33. Out: now. Requires: any colour Mac with System 6.0.7 or later, at least 2Mb of RAM (4Mb for System 7 users) and a CD-ROM drive. Contact Koch Media Ltd on 0252 714340.**

MACFORMAT RATING 51%

You'll find demos of both *Magic Castle* & *Pinocchio* on this month's MACFORMAT CD-ROM.

The Adventures of Pinocchio

A well-known folk tale meets modern Macintosh technology in this educational CD-ROM.


Pinocchio trotted off with renewed purpose, determined not to be late and draw undue attention to himself. The unlucky puppet had barely begun when an imposing man with a flowing black beard sprung out from the shadows, confronting him.
"What do you think you're doing, stealing the costumes for my show?" the man demanded. "Speak up, boy, or you'll soon feel my wrath."
Read
Control

The hero of our folk story – a naïve, child-like wooden puppet, named Pinocchio by his maker.

The idea behind this release from New Media Schoolhouse is a simple one: to treat the CD-ROM as a book, with words and pictures, but also to use it for interactive reference in a way that only a CD-ROM can manage.

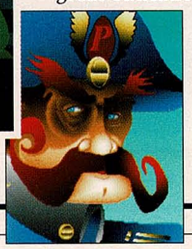
Pinocchio is based on the original folk tale, as opposed to *Walt Disney's Pinocchio*, which is an entirely different and heavily trademarked beast. You can select any of the 20 chapters from one screen, and go forwards from that point – or backwards if you're feeling particularly contrary.

Most of the pages are simply text and pictures, although there are a few pages where you can see an animated scene. At the click of a button, you can hear all the words being read out by an American gentleman. The main point of this CD version of the traditional tale is that some words are highlighted in a different colour from the rest. Click on one of these, and you can see and hear a definition of that word. It's a simple concept with great educational potential...

Except, the result is that both the storytelling and definitions are horribly ham fisted. In particular, the definitions give you qthe impression that they've been lifted straight from a dictionary, which is somewhat pointless considering that children who are too young to understand the word in the first place will definitely struggle to make sense of the definition. You might as well have a parent on constant standby – he or she could explain the difficult words far more clearly.

Richard Hill

The writing style is often too heavy and long-winded to encourage a child to keep reading. Ribbit!



And this is the horrid old man that locked up poor old Gepetto.

■ **Price: £33. Out: now. Requires: any colour Mac with System 6.0.7 or later, at least 2Mb of RAM (4Mb for System 7 users) and a CD-ROM drive. For more details contact Koch Media Ltd on 0252 714340.**

MACFORMAT RATING 47%

Time Traveller

Climb into your time capsule, hit the controls and reappear in the past to see history first-hand.

The idea behind *Time Traveller* is both clear and imaginative: you have a time capsule at your disposal and can use it to visit any given continent between 4000 BC and 1992 AD. You can discover the political events of the time, see how people lived with the program's 'Culture' button, or monitor man's scientific development. The program aims to be a chronicle of the growth of civilisation and its effect on the human race.

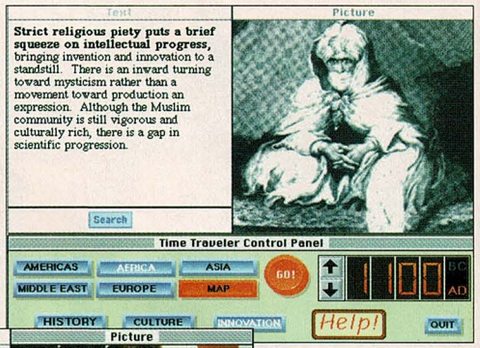
Dipping into history with your own time machine is an evocative concept, and your Mac playfully acts out its part by making appropriately futuristic bleeps whenever it calls up a historical record.

Time Traveller uses three windows – one each for the text, images and control panel. Using standard Mac windows for the program may make it easier to grips with, but that doesn't necessarily make it a good idea in this case. There's no sense of the various elements working together coherently, and it's a pain having to click on a window just to scroll through some text or move to a different year – you keep forgetting you have to do it. Ideally, you should be able to use any program without having to think about it, but that doesn't happen here – despite the fact that there are only a few features to juggle with. *Time Traveller* is essentially a simple program, but it's awkward to use because the design has been screwed up pretty badly.

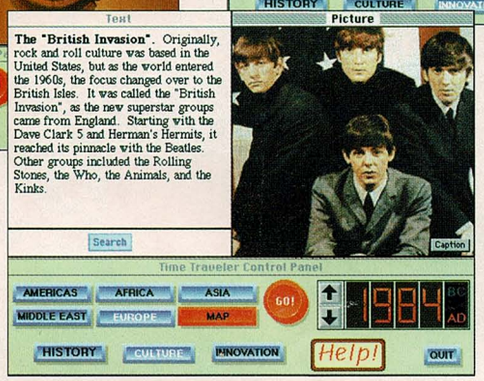
Visit Europe in the 1980s and you get the story of the Beatles. Hardly a detailed account of civilisation.

Text
The art of the Asante. In the kingdom of Asante, small-scale sculpture of secular art flourished during the eighteenth century. One of the most remarkable examples is a gold head, made either as a trophy to be hung from royal insignia or as a royal burial mask. Asante is also remembered for small brass weights, used for measuring gold dust, cast in the form of human figures, animals, and simple designs.
Picture
Search
Time Traveler Control Panel
AMERICAS
AFRICA
ASIA
MIDDLE EAST
EUROPE
MAP
GO!
HISTORY
CULTURE
INNOVATION

Works of art put a cultural perspective on the facts and dates of history down the ages.



The 'brief squeeze on intellectual progress' has apparently lasted for almost nine centuries in some parts of the world.


Text
The "British Invasion". Originally, rock and roll culture was based in the United States, but as the world entered the 1960s, the focus changed over to the British Isles. It was called the "British Invasion", as the new superstar groups came from England. Starting with the Dave Clark 5 and Herman's Hermits, it reached its pinnacle with the Beatles. Other groups included the Rolling Stones, the Who, the Animals, and the Kinks.
Picture
Caption
Search
Time Traveler Control Panel
AMERICAS
AFRICA
ASIA
MIDDLE EAST
EUROPE
MAP
GO!
1984
BC
AD
HISTORY
CULTURE
INNOVATION
Help!
QUIT

Pardon me for quibbling, but wasn't one of these gentlemen dead by 1984?

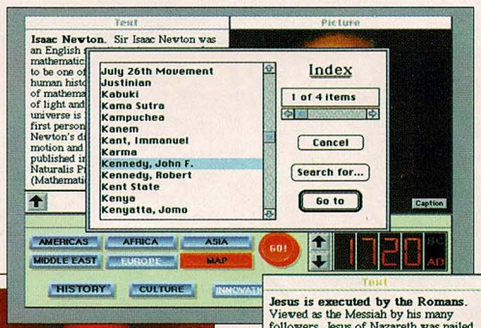
A more serious problem, however, is the sketchiness of the information. Even with relatively recent history, where plenty of information was available to the program's researchers, entire decades of progress have been summed up in a perfunctory paragraph. Visit Europe in the 1980s, for example, and you'll be given the story of the Beatles and the first British pop invasion of the United States! Now whatever you think of the Fab Four and – let's get it right – *'60s* music generally, this is hardly a detailed account of the cultural growth of European civilisation.

Size is not necessarily a good indication of quality, but when an illustrated reference guide uses a mere 80Mb of CD-ROM space from a possible 650Mb it suggests it's not exactly a definitive work.

When descriptions become so paltry that the scientific and philosophic growth of Africa apparently remains unchanged for centuries (a conclusion you'd draw because the same caption and picture are used to cover the entire period), you begin to feel that someone hasn't been doing their research.

For a program costing over £125, *Time Traveller* just isn't good enough. There are plenty of better reference works to spend your money on, including *Prehistoria* (reviewed on page 74). It really is a shame, because the basic concept is such a strong one. Someone should steal this idea and do it properly.

Richard Hill



An alphabetical index enables you to look for a topic or person you've heard about, even when you don't know the exact historical era.

The less well-known areas of history are covered, but there's enough space left on the CD to have done it in greater depth.

Text
Jesus is executed by the Romans. Viewed as the Messiah by his many followers, Jesus of Nazareth was nailed onto a wooden cross where he died at 9 o'clock in the morning on April 30th, in the year 30, in the city of Jerusalem.
He was sentenced to death by the Roman governor, Pontius Pilate. Pilate apparently wanted to free Jesus but members of the ruling local council insisted that he be punished for claiming he was the "Son of God" and the Messiah.
Three days after his death the
Picture
Search
Time Traveler Control Panel
AMERICAS
AFRICA
ASIA
MIDDLE EAST
EUROPE
MAP
GO!
0035
BC
AD
HISTORY
CULTURE
INNOVATION
Help!
QUIT

Paintings and specially-created drawings take the place of photos for events that took place before this century.

TIME TRAVELLER

Price: £129.25. Out: now.
Requires: colour Mac with System 6.0.7 or later, 2Mb of RAM and a CD-ROM drive.
For more details call Koch Media Ltd on 0252 714340.

Features There are some, all right?	70%
Ease of use Simple to use, but it could've been easier.	78%
Value for money Too high a price for the quality and quantity of the content.	40%
MACFORMAT RATING	43%

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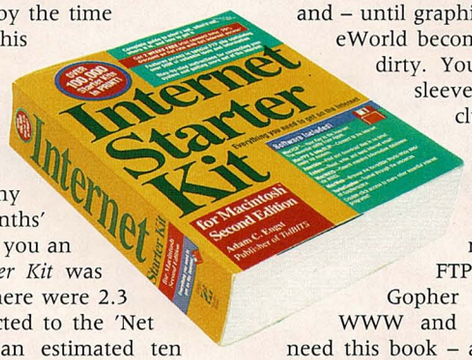
A cadet's guide to Cyberspace

The Internet is deep, it's vast and it's only a phone call away. But how do you go cruising the digital superhighway without getting lost?

If I were to begin this review by claiming that there're 23 million computer users hooking into the Internet world wide, I'd be wrong. Because by the time you've bought and read this issue of MACFORMAT, there will be tens of thousands more. In fact, the 'Net's growth rate is so stratospheric no one really knows how many users there'll be in six months' time. But this should give you an idea. When *Internet Starter Kit* was revised earlier this year there were 2.3 million computers connected to the 'Net community (each with an estimated ten users). The first edition, however, which was published in September 1993, quoted 1.7 million 'Net connected computers (giving a figure of 17 million users). Get the idea?



You come across these problems of scale all the time when you're trying to describe and explain the Internet. It's not just a question of numbers either – it's as much to do with the sheer diversity of news and interest groups, subject areas, information providers, vendors, academic institutions, corporates, e-Mailers and absolutely every freeware and shareware Mac title ever written.

Bible studies

Adam C Engst, *ISK's* author, clearly had a tough job. True, he could have applied a skimpy coat of thin gloss and come up with a sparse reference guide that read like an index – but he didn't. Fortunately, what we have here is a 995-page, fact-packed bible complete with a disk full of Mac utilities for going on-line. In short, all that's missing is a covermounted modem. *[Now, there's an idea! – Ed]*

Unfortunately, though, much of the content is aimed at an American audience and, as such, you have to grin and bear the overly gushing style. That aside, there's much here that deserves praise. Engst certainly has a good grip of this huge subject and manages to cover all its facets with sufficient detail to make *Internet Starter Kit* an engrossing read. But therein lies the flip side to the Internet: it's big, it's complex and – until graphic front-ends like Apple's eWorld become well established – it's dirty. You have to roll up your sleeves, ditch your mouse, get clued up on UNIX and get friendly with whole new bunch of acronyms, terms and concepts. Know what TCP/IP refers to? What about FTP? RFC? Any guesses on Gopher or Telnet? What about WWW and WAIS? No? Then you need this book – and those terms are just the beginning.

ISK deals with the low-level structural stuff straight off, taking you through the various networking terms and protocols, through a history of their disparate construction, and to their eventual consolidation as a World Wide Web. But before pitching into the real nitty gritty of how you actually connect to the 'Net, Engst shares with us some extracts from his on-line forays around the world, just to underline the fact that there's a fun element here. Because although the 'Net may appear complicated and seem to require serious application, it's nevertheless an exciting place to explore.

So it's on to chapters establishing the rules for e-Mail and addressing, file transfer protocols and 'netiquette', and descriptions of the main Internet services and where to find them. Next, of course, comes the 'how to' of it all. By now we're at page 222, so, as you can imagine, there's plenty to get to grips with here.

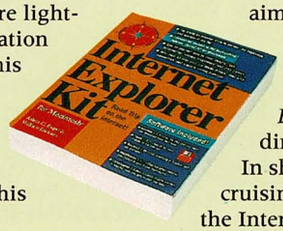
Methods and madness

Engst outlines the four main ways of connecting to the 'Net: hooking up to a commercial service offering e-Mail only access, logging on to a public access UNIX account, joining a UUCP (UNIX-to-UNIX-CoPy) site, like those found at universities, or dialling up a site running SLIP (Serial Line Internet Protocol), which, providing you have *MacTCP* software, enables you to do everything on the Internet via a Macintosh interface.

And since *MacTCP* and *InterSLIP* are two of

INTERNET EXPLORER KIT

Coming with updated versions of the programs found on *ISK's* disk and a couple of other handy Internet utilities, the *Explorer* book appears to be a little more lightweight than its sibling publication – despite its 446 pages. But this is because the style takes the form of an on-going on-line correspondence between Engst and William Dickson – who it seems spends more of his life on-line than off.



The tone is explorative and reflective, and the content more concerned with signposting those esoteric little shacks lurking at the end of the dirt tracks just off the superhighway. Yep, it's the wild and wacky world of 'On-line', folks. But before you start thinking it's more to do with Superegos than Superhighways, I'll just say it's crammed full of all the addresses that you'd expect to find in a Rough Guide to the Internet. Like interactive cafes, underground journals, on-line magazines – or simply servers that you can lurk around and aimlessly wander.

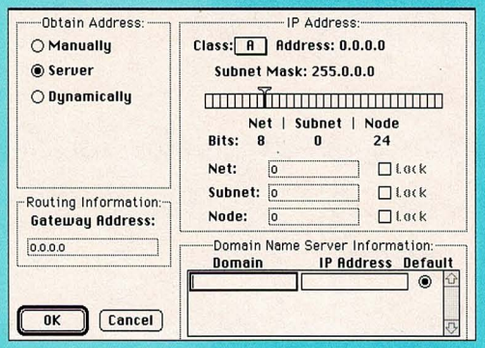
The two books work extremely well together: the *Starter Kit* prepares the ground work, while the *Explorer Kit* points you in the right direction for some choice encounters. In short, it's an invaluable guide to cruising some of the cooler hang-outs on the Internet, and is well worth a browse before you buy.

■ Price: £27.98.
ISBN: 1-568-300-891.
For more details contact Paramount Publishing on 0442 881900.

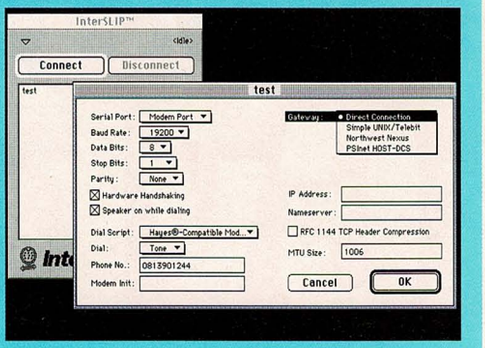
MACFORMAT RATING **85%**

WHAT'S ON THE DISK?

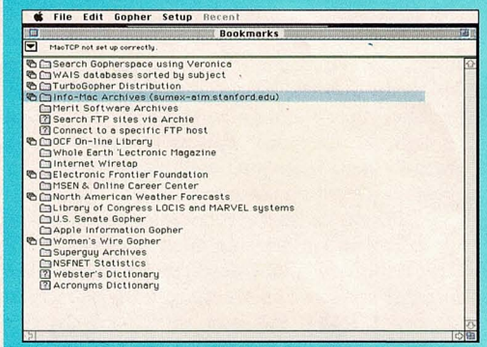
Internet Starter Kit's disk comes with its own installer to make the clutch of comms utilities it contains a breeze to get up and running. *Anarchie 1.2* is one of the many excellent titles available – it is a slick File Transfer Protocol (FTP) program that takes the pain out of uploading and downloading both binary and text files from Internet servers. However, don't stop here! There are many more programs that are well worth a look...



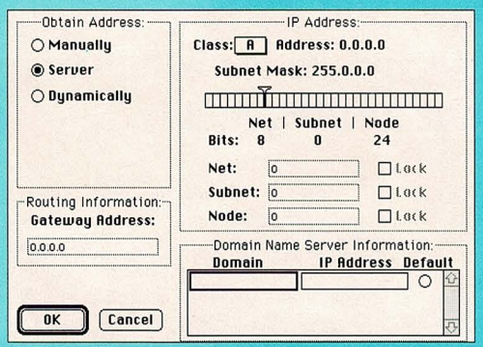
Eudora is the most popular program for e-Mail on the Mac. It also happens to be freeware. With it you can quickly read e-Mail, no matter what form of 'Net connection you're using.



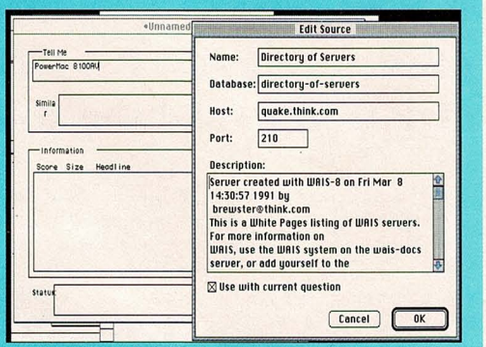
InterSLIP 1.0.1 is another great freeware offering. *InterSLIP* enables you to join any Serial Line Internet Protocol account on the 'Net via a modem.



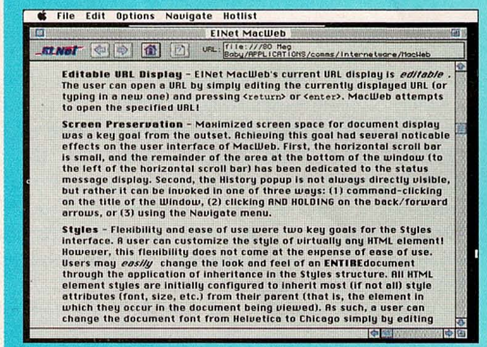
TurboGopher 1.0.8b4 is a browser that enables you to cruise the Infobahn and connect with 1,500 or so information servers on the Internet (known as 'Gopherspace').



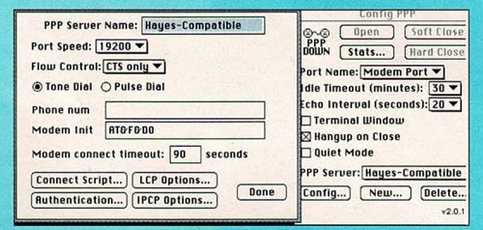
MacTCP 2.0.4 is Apple's own communications software tool – and the one utility that enables programs like *Anarchie* and *TurboGopher* to work on the Internet.


*Unnamed
Edit Source
Tell Me
PowerMac 8100/80
Information
Score Size Headline
Name: Directory of Servers
Database: directory-of-servers
Host: quake.think.com
Port: 210
Description:
Server created with WAIS-8 on Fri Mar 8 14:30:57 1991 by brewster@think.com
This is a White Pages listing of WAIS servers. For more information on WAIS, use the WAIS system on the wais-docs server, or add yourself to the
Use with current question
Cancel
OK

MacWAIS 1.29 is the de facto shareware utility for using Wide Area Information Server (WAIS) sites, like when you want to search more than 500 full text databases of info.


File Edit Options Navigate Hotlist
ENet MacWeb
Editable URL Display – ENet MacWeb's current URL display is editable. The user can open a URL by simply editing the currently displayed URL (or typing in a new one) and pressing <return> or <enter>. MacWeb attempts to open the specified URL!
Screen Preservation – Maximized screen space for document display was a key goal from the outset. Achieving this goal had several noticable effects on the user interface of MacWeb. First, the horizontal scroll bar is small, and the remainder of the area at the bottom of the window (to the left of the horizontal scroll bar) has been dedicated to the status message display. Second, the History popup is not always directly visible, but rather it can be invoked in one of three ways: (1) command-clicking on the title of the Window, (2) clicking AND HOLDING on the back/forward arrows, or (3) using the Navigate menu.
Styles – Flexibility and ease of use were two key goals for the Styles interface. A user can customize the style of virtually any HTML element! However, this flexibility does not come at the expense of ease of use. Users may easily change the look and feel of an ENTIREdocument through the application of inheritance in the Styles structure. All HTML element styles are initially configured to inherit most (if not all) style attributes (font, size, etc.) from their parent (that is, the element in which they occur in the document being viewed). As such, a user can change the document font from Helvetica to Chicago simply by editing

MacWeb 0.98a is a freeware front-end for the World Wide Web, which is a network of servers providing access to full fonts, on-screen images – and thereby on-line magazines!



MacPPP 2.0.1 is a freeware implementation of a front-end, which along with *MacTCP* makes it possible for you to connect to any Point to Point (PPP) account via a modem.

the programs on the *Internet Starter Kit*'s bundled disk, you won't be completely surprised to learn that the rest of book (save the final 200 pages of appendices and indexes) is devoted to this last method of going on-line. And we can only be thankful that there are Mac front-ends to this vast UNIX network, because otherwise the new frontier would look about 15 years out-of-date.

Program prose

In describing, explaining and comparing the clutch of Macintosh software designed to make UNIX more palatable, Engst really excels. We are treated to thorough discussions on the merits of all the software on the disk: e-Mail programs like *Eudora*, Usenet newsreaders like *NewsWatcher* and FTP clients such as *Anarchie* and *Fetch*. Then there's *MacWAIS*, a front-end for searching through massive information databases. The disk also includes Gopher clients such as *TurboGopher*, and World Wide Web browsers like *MacWeb*.

No, none of it sounds easy and appealing – but after nearly 300 pages, you'll get the hang of it. Especially because all the software is included on the disk; so all you need is a modem, a number and a rather a relaxed attitude to your next phone bill.

Discussions of the disk's programs don't dominate *ISK*, though; the majority of the pages are devoted to step-by-step guides about how to install and use the software. And if, like me, all this comms lark tends to go a bit over your head, you'll enjoy the clarity and ease with which the actual mechanics of Internet access are explained.

Sell by date?

Because the only thing you can be completely certain about on the Internet is the fact that it continually changes, an author writing a book devoted to the Internet needs to watch his back. New resources such as mailing lists, news groups and servers spring up all the time, and while any book will find this dynamism difficult to pin down, at least *ISK* shows you how to keep tabs on the changes. Indeed, its appendices alone – dealing with an alphabetical trawl of the hundreds of diverse subject resources available on the Internet, from Astronomy to Zoology – could have been a book in their own right. Add to this a full listing of all the Usenet news groups and hundreds of dial-up numbers for sites with Macintosh interfaces and you're all ready for the onslaught of on-line overkill.

It is a pity then that most, if not all, of the services and sites that are described here are in the States. Perhaps a chapter dealing with international access, and how to minimise its inherent costs, will find its way into the third edition – or, better still, what about a Euro-specific edition? Still, *Internet Starter Kit* succeeds in delivering a mass of readable information on a highly complex subject. And, despite its all-American focus and tone, it remains indispensable for anyone wanting to explore the brave new whirl of the Internet. Thoroughly recommended. *Andy Storer*

■ Price: £27.98.
ISBN: 1-56830-064-6.
For more details contact Paramount Publishing on 0442 881900.
You can also order the *Internet Starter Kit* through MACFORMAT's own mail order service (see page 107 for more details).

MACFORMAT RATING 92%

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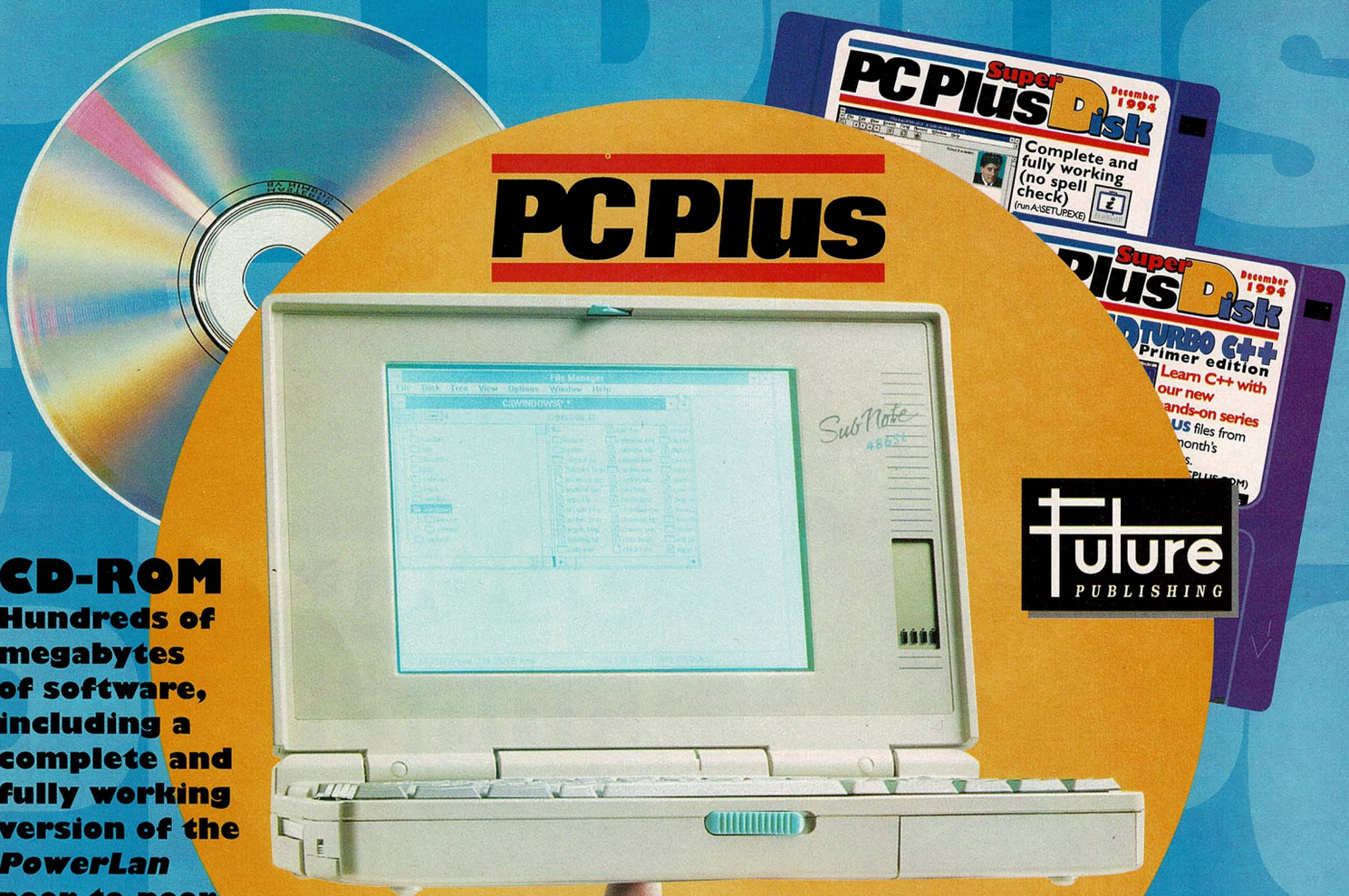

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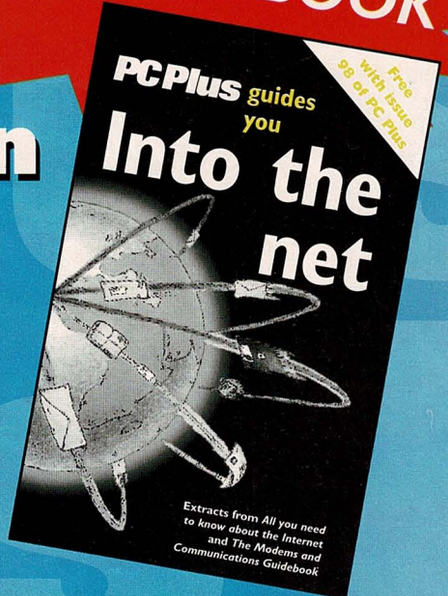
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MACANSWERS

GOT A PROBLEM WITH YOUR MAC? WE'RE HERE TO SOLVE IT!

Whatever your Mac problems we're confident that MACFORMAT's experts can solve them. All you have to do is fill in the form on page 86 – or photocopy it if you don't want to cut up your copy of MACFORMAT – and then post or fax it to us. Include as much detail as you possibly can about your setup and the software you're running, in particular the version number (to get this, highlight the program icon, then select Get Info in the File menu or press [command] I).

Please note that we are unable to answer questions over the phone – so there's no point ringing us up with technical enquiries. We're also unable to enter into personal correspondence – even if you enclose an SAE.

Do-it-yourself problem solving

One of the main causes of a program not working properly is something called an INIT clash – this ominous-sounding term means your program isn't happy with one of the system-level Extensions (INITs in System 6) that are running.

Fortunately, it's easy to check if this is the case. First of all, restart your Mac without any System Extensions (INITs). If you're running System 7.0 or above, that means restarting the Mac and holding down the [shift] key – a message telling you 'Extensions off' will appear. For any System version below 7.0, move all the Control Panels and INITs out of your System Folder and restart the Mac.

If your program now works, it must have been unhappy with one or more of the INITs. The only way to work out which one is the culprit is to move them all out of the System Folder, then put them back in one at a time – not forgetting to restart your Mac after each one – and test the program again after each one has been replaced.

Come wind, rain or snow, our team of experts battle to save your Mac. This month's team includes Stuart McHugh, Simon Cox, Jim Chandler and Derek Smith.

Protect and save

SYSTEM

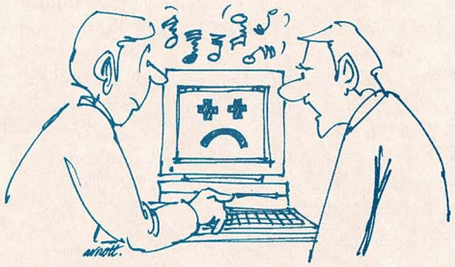
Q After experiencing regular crashes, I tried re-installing System 7.1. But I got the message: 'cannot overwrite a protected resource on hard disk. Error detected before installation began.' How can I re-install my System software?

T Walker
North Yorks

A The problem comes from the fact that some piece of software has altered the System file in the System Folder. I notice you have a hand scanner, and it may well be its software driver that's caused the problem. Apple's installer can't get rid of the changes to your System file and gives up. To solve the problem you can follow these steps...

1. Start from the Disk Tools floppy that comes with the System software.
2. Open your hard disk, then open the System Folder and move the System file out of the folder to somewhere safe. Don't worry when your System Folder and all the folders within it lose their custom icons.
3. Choose Shutdown and restart from the Install 1 disk. You should now be able to re-install your System software.
4. If after a few days everything is all right, you can delete the old System file.

You may well find that whatever software caused this trouble will not work, and so you will need to re-install that software as well. *DS*



'It's either the Death March or the Mr Blobby single...'

A macro made in heaven

GENERAL

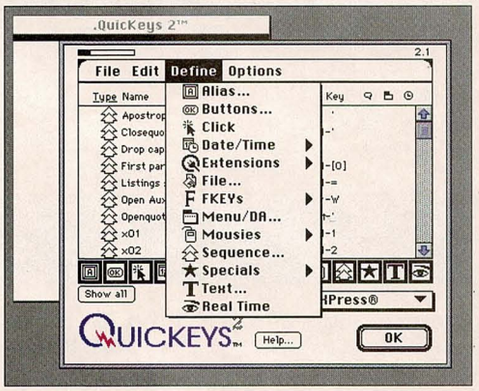
Q I have recently found a copy of the old Apple System 6 utility MacroMaker. *I have two questions about it: will it run under System 7, and is it any good?*

James Caldwell
Iver, Bucks

A For those who don't remember System 6, *MacroMaker* was a utility that recorded your actions so they could be replayed at a later time. This is very similar to the macro facility in *ClarisWorks*. Unfortunately, *MacroMaker* won't work with System 7, but then, it wasn't particularly reliable under System 6. And even when it did work, its usefulness was fairly limited.

The fundamental problem with *MacroMaker* is that the macros can't be edited. All it does is record simple events such as mouse movements and key clicks. For example, if you move the mouse to the top-left of a window and click on the close box button, the window will close. But if you try to use a replay of that action, it will only work if the window is in the same position, which isn't very likely.

CE's *QuicKeys* works in a similar, but more intelligent way. (It's £135 or less from Frontline on 0256 463344.) If you are waiting for a System 7 version of *MacroMaker* from Apple, then the closest you're going to get is *AppleScript*, which is part of System 7.5. If applications are written appropriately, then *AppleScript* can record actions in the same way as *MacroMaker* – only better. However, this versatility comes at the expense of ease-of-use. *SC*



QuicKeys is able to record keystrokes and mouse clicks in a file for subsequent playback.

Easing into madness

SOFTWARE

Q I have At Ease, *but every time I try to switch it on I get a message saying: '*At Ease *couldn't open because an error of type 39 has occurred'. The book said that if you throw* At Ease *away without closing it, you can cause problems. What should I do?*

Janimatti Ellonen
Skarholmen, Sweden

A Error 39 means 'end-of-file', which suggests that you have a file error. Although it's not what I would have expected, certainly *At Ease* shouldn't be trashed before being de-installed. If you want to remove *At Ease*, it should be switched off in the Control Panel first and then dragged to the trash. You should then

A VIRTUAL PROBLEM

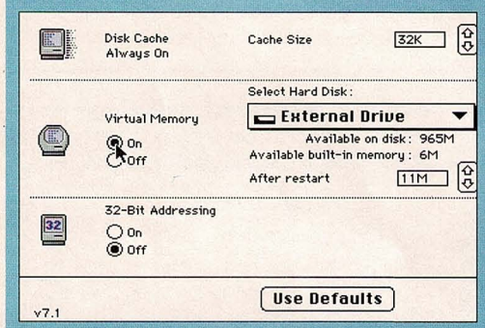
It's a simple rule of the universe that you never have enough RAM. Virtual Memory helps, but there can be problems...

Finder remembered

MEMORY

Q *Does a program exist that enables you to allocate different types of memory to different applications? For example, is it possible to run the Finder in Virtual Memory so you have enough real memory to run the programs that need it?*
Marc Dubois
Bristol

A An intriguing idea, Marc, but alas, it's not possible because of how Virtual Memory works. A Macintosh contains a certain amount of memory that the System's able to allocate to any applications. This allocation of memory can be changed by using the boxes in the 'Get Info' window in the Finder. What Virtual Memory does is to trick the System into thinking it has more memory than the hardware actually contains. It does this by using the hard disk as temporary memory.



You can set up an internal or external hard disk to act as Virtual Memory from the Memory Control Panel.

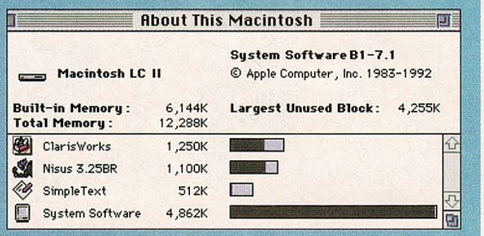
Unfortunately, memory appears as one block with no distinction between the built-in memory and your hard disk, so you can't choose which programs run in which type of memory. However, there are a couple of shareware programs that enable you to quit the Finder when it's not in use, such as *Xo-Launch*, which is featured on page 103. This will help you to free up some of that precious memory. *SC*

Virtual Memory

MEMORY

Q *I've recently bought an LC475 with 4Mb of memory. For some reason* PageMaker 4.0 *will not run unless Virtual Memory is turned on. When Virtual Memory is turned off,* PageMaker *crashes with an error of type 15. Is there a technical reason for this?*
Alex Palmer
Handsworth, Sheffield

A An error of type 15 is called a segment loader error and can arise for a number of reasons. In this case, it's probably because you don't have enough memory to run *PageMaker*. When you turn on Virtual Memory, the System uses the hard disk as extra memory. So, when *PageMaker* is launched with Virtual Memory turned on, the application runs properly. *SC*



Paul Daniels would love *RAMDoubler*, because it creates more memory from nowhere – it is also rumoured to be a cure for hair-loss.

Doubler or quit

MEMORY

Q *I've heard a lot about* RAMDoubler *and how much faster it is than Virtual Memory. I have an application that refuses to run with Virtual Memory. Will it work with* RAMDoubler*?*
Dean Adams
London

A *RAMDoubler* is indeed somewhat faster than Virtual Memory for two reasons. First, it creates its own form of Virtual Memory using your hard disk. This is superior to Apple's Virtual Memory, but it also uses memory more efficiently. Although there is no hard and fast rule, generally if a program doesn't work with Apple's Virtual Memory, then it is unlikely to work with *RAMDoubler*. We have found around the office that applications often give exactly the same error message with *RAMDoubler* as they do with Virtual Memory. *DS*

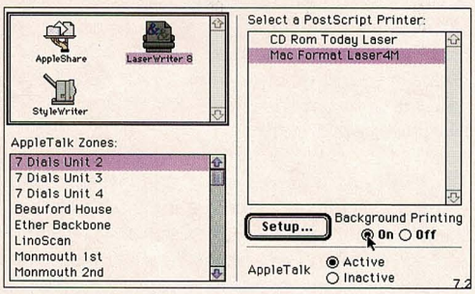
throw away any *At Ease* files that are still on your disk, before reinstalling the program from your System disks. *McK*

A good background

PRINTING

Q *When I print in the background, the System eats up most of the available RAM and stops me using my Mac. As soon as printing stops, the System goes back to normal. It doesn't happen with simple documents, or when background printing is off.*
PD Entwistle
Thornton-Cleveleys, Lancashire

A Background printing is the culprit here. The idea of background printing is that you can print a document while you continue to work. With background printing turned off, the application you're printing from sends all its information direct to the printer. This forces you to wait until the printer's finished before you can continue working.



Background printing is not always useful and can be turned on and off from the Chooser screen.

Background printing creates a spool file on your hard disk, and starts up the application called *PrintMonitor* to manage the process. The more complex the document to be printed, the more information needs to be sent, and consequently, the larger the spool file. Then, the *PrintMonitor* sends the spool file to your printer a bit at a time, so the larger the document, the longer the process takes.

With background printing on you get back control of your Mac more quickly than with background printing turned off, but your document will take longer to print, use more memory, and slow down any other programs that are running. The best remedy here is to turn off background printing. This is done from the Chooser window when you select a printer.

Alternatively, find the PrintMonitor application in the Extensions folder, click once on its icon, and select 'Get Info' from the file menu. Then you can alter the amount of memory allocated to the PrintMonitor at the bottom of the box. Normally this is set at around 90K, so if yours is higher, you could try reducing the memory allocation. *JC*

Many of Apple's PostScript lasers can be speeded up by adding extra memory, just like your Mac.

The need for speed

PRINTING

Q *I have some questions regarding my LaserWriter Select 310.*
1. Is there a simple (and cheap) way to speed it up? It takes 25 minutes for a page of mixed text and graphics at the moment.
2. Can you tell me why I get white hairlines on black graphics? The machine is clean. Should I stop using PICT format?
3. Is there an equivalent to Adobe Type Manager *that will enable me to use old TrueType fonts?*
G Jenkinson
Devizes, Wiltshire

A 1. The Select 310 is a PostScript printer, and as such, its print speed is largely deter-

mined by the speed of its microprocessor and print engine. Neither of these can be easily replaced in the Select 310. 25 minutes for a page of text and graphics does sound a lot though. You don't say which application you're printing from, or what your page consists of, but I suspect that it has some fairly complex PostScript images on it, or lots of fonts. Simplifying the page and using fewer fonts should help.

2. Again, you don't say which application you're printing from, or whether this problem only affects PICT graphics. Some PICT bitmaps suffer when printed on a 300dpi (dots per inch) laser printer because they were created at 72dpi, which can't easily be scaled to 300dpi.

You can easily see if this is the problem by going to Page Setup and choosing Options. Click on 'Precision Bitmap Alignment' and reduce it by 4%. Now print out a page. Everything should come out 4% smaller, while your PICT files should have a resolution of 288dpi (which is four times 72dpi), and so should print out more clearly. This is a fairly common problem with PICTs that contain patterns, but it is conceivable that your solid blacks are suffering from the same problem.

3. TrueType fonts are supported by the System, so they can be seen and printed without installing anything like *ATM*. If you're running a version of a System later than 7.0 (and you are), they should display and print in all their pristine glory. I get the impression that only some of yours do, though, because you refer to 'old' TrueType fonts, when in fact there is only the one format of Macintosh TrueType fonts.

I suspect that you've fallen foul of the 'LaserWriter 8.0 TrueType problem'. For some reason, version 8.0 of the LaserWriter driver won't print a lot of non-Apple TrueType fonts. It gives no errors, but just doesn't print. The best way around this is to annoy your local AppleCentre until they give you a copy of LaserWriter driver version 8.1.1. This often seems to fix this problem, as well as a few other bugs. *JC*

READERS' TIPS

If you need to copy a lot of files on your Mac, you needn't wait for that grey bar to finish snaking across the screen before you resume work. Providing you opened an application before you started copying, you can bring that application to the front again and your Macintosh will continue copying in the background. To do this simply select the appropriate application from the application menu, which is at the top-right of your screen, next to the 'Balloon' help icon. *Dennis Farmer*

To log on to a network quickly, make an alias of its icon and leave it on your Desktop. Double-click this icon to bypass using the Chooser. *Michael Rasmuson*

To open a folder and automatically close the previous window, hold [option] as you double-click the folder. *Susan Partridge*

Open the Map Control Panel, hold [option] and click 'Find' to see the next town in alphabetical order. *Jon Maynard*

Sometimes you put a floppy disk into your drive, but its icon doesn't appear. To eject the disk all you have to do is press down [command] [shift] and 1. *Frank Eller*

In any dialogue box, to select Cancel, simply press the [esc] key. *Donald Masters*

To eject a floppy, click on the disk once then press [command] and Y. *Neil Collins*

You may have heard you can turn an old double density disk into a high density disk by punching a hole in the cover. Don't! The disks aren't made of a high enough quality material and bits of plastic get stuck in the casing. *Thomas Barking*

For a healthy Mac, rebuild your Desktop regularly by holding down [command] and [option] on startup. *Ryan Whitehead*

Bear in mind that although *DiskLight* (part of *Norton Utilities*) is helpful, it can slow down your Mac's hard disk by a small but significant amount. *Marvin Collin*

Up the RAM

MEMORY

Q I intend adding more memory to my 4Mb LCIII, but I have a few queries before I start.

1. Can I increase my memory in stages of 4Mb up to the maximum of 36Mb?

2. Why does an 8Mb SIMM cost more than double a 4Mb SIMM?

3. Is there any reason for buying an 8Mb SIMM rather than two 4Mb SIMMs?

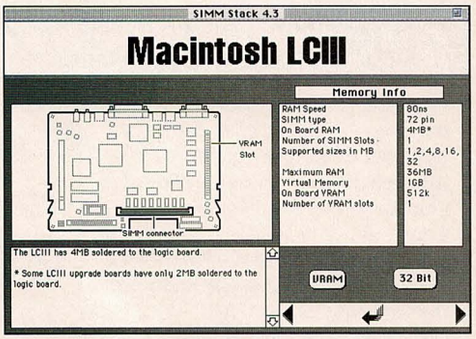
4. What is the significance of the number of pins when applied to SIMMs? I have seen both 30 pin and 72 pin SIMMs advertised.

5. The advertised prices for memory vary considerably. Does the price reflect any difference in the quality or reliability?

WM Blackett
Ivybridge, Devon

A 1. The way you add memory to a Mac depends entirely on which Mac you have. All recent Macs have at least one socket on their motherboard where you can place more memory – memory being sold in units called SIMMs (Single In-Line Memory Modules). In the case of the LCIII, there's only one socket. This can accept a single SIMM of 1, 2, 4, 8, 16 or 32Mb. Therefore, you can only increase your machine's memory to 5, 7, 8, 12, 20 or 36Mb.

'RAM is a name, not a suggestion!'



SIMM Stack is an excellent program packed with information, and you'll find a copy on MACFORMAT 14's CD-ROM.

2. Each SIMM is generally made up of eight individual memory chips. The larger the SIMM, the larger each individual chip has to be. The price of these individual chips affects the cost of the SIMM. Generally, larger memory chips are newer and tend to be more expensive because they're harder to produce. This is why an 8Mb SIMM can cost more than two 4Mb SIMMs.

3. With an LCIII, your expansion options are severely limited and therefore you should probably buy the largest single SIMM you can afford. For other machines with more SIMM sockets it may be worth buying SIMMs in pairs. Most Macintoshes now require you to add the same size SIMMs in all the SIMM slots when you upgrade.

4. Older Macs take 30-pin SIMMs, while newer ones use the 72-pin variety. You should buy the correct type for your machine, which in the case of the LCIII is a 72 pin SIMM.

5. Generally, there's no difference between SIMMs, because there're very few manufacturers that produce them. However, you should not buy composite SIMMs. These are produced by gluing together a number of small size memory chips to make a larger SIMM – for example, making a 16Mb SIMM out of sixteen 1Mb SIMMs rather than eight 2Mb SIMMs. Composite SIMMs can cause problems in certain Macs and are not recommended by Apple.

For more information on expanding the memory of a Mac, there's an excellent *HyperCard* stack produced by Apple called *SIMM Stack*. Or you could read our feature about upgrading your RAM in MACFORMAT 14. *SC*

Pull the plug

SOUND

Q Whenever I plug the microphone in, all the sound from the computer disappears. When I try to record a sound, nothing is recorded, just ten seconds of silence. When I take the microphone out, the sound returns. Why?

Amir Nooriala
London

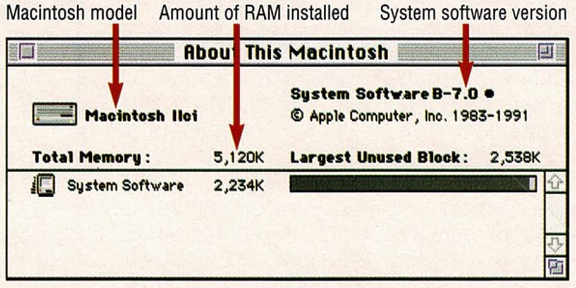
A It seems you're plugging the microphone into the wrong port. Most ports are different shapes, so you can't plug things in the wrong hole, but you've found the exception.

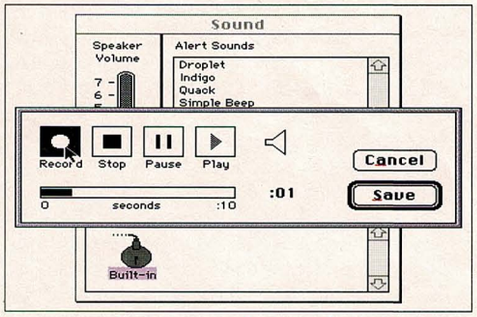
There are two sound ports at the back of a Mac: sound-in and sound-out. You should plug the microphone into the sound-in port, which has a symbol of a microphone above it. On your Classic II this is next to the keyboard port.

The sound-out port, which has a speaker

HOW MUCH RAM HAVE YOU GOT?

Obvious, but true: even the same models of Mac can have different amounts of memory or run different System software. To solve your problem, first we need to know all about your setup; find out here. Ensure you are in the Finder, point to the Apple menu and go to the first item, About This Macintosh, then release the mouse button, and all will be revealed.





You can record up to ten seconds of sound using the little microphone that comes with all new Macs.

symbol above it, is used to connect external speakers. However, you have accidentally found an interesting use for the port. By plugging a jack into the port you kill the internal speaker, which is the only way to stop the machine going 'Bing' when you start up – this could be useful when you take your PowerBook into a library. *DS*

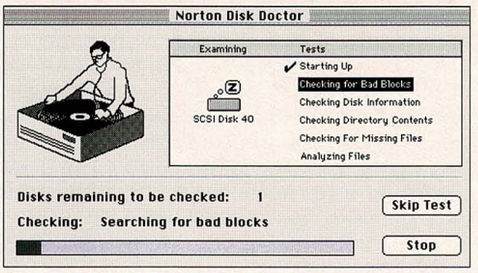
Corruption

PRINTING

Q *When trying to print in either Geneva or Helvetica font, all I get is gibberish. All the other fonts are fine, so what do you think is wrong?*
Bryan Watkins
Totnes, Devon

A My guess is that you have some corrupt files on your disk. This doesn't mean that they're taking bribes from construction companies, but rather that the data on your hard disk has become scrambled. As a first step, make sure you have copies of all your important files (of course, nobody actually does this, but it means we can sound smug if you call us in a panic). Then use some software to check your disk. Use Apple's *Disk First Aid*, or better still, a commercial program like *Norton Utilities*.

Even if these don't detect a problem, I still strongly suggest you completely re-install your System software from the original System disks. If you have a Performa, you won't have any of these, so you'll have to buy them. If your printer's not an Apple one, then re-install the printer software as well. If this doesn't cure the problem, then try to find out if the problem occurs in all applications or just one. If it's in just one application, check with the distributor that it's up-to-date and re-install it. *JC*



Norton Utilities 3.0 can now find more problems, solve them more efficiently and get your whites whiter.

HEALTHY HINTS

For more tips on how to keep your Mac in the best of health, turn to the Troubleshooting guide on page 57.

MACANSWERS

If you send in a question for the MACFORMAT experts to solve, please fill in and include this form (or a copy of it). And please make sure that you include all the relevant details – version numbers of software and so on – so that we have the best chance of helping you. Send your form and question to:
Mac Answers, MACFORMAT, 30 Monmouth Street, Bath BA1 2BW.
Or fax it to us on 0225 446019.

Name .....

Address .....

.....

.....

Your Mac
(For example, Performa 200, IIfx, PowerBook 145):

.....

System version
(see About this Macintosh screenshot above):

.....

Amount of RAM
(Total Memory figure from the About This Macintosh dialogue box):

.....

Are you using Virtual Memory? .....**YES/NO**
(This is accessed from the Memory Control Panel under System 7)

Do you have 32-bit addressing turned on? .....**YES/NO**
(This is accessed from the Memory Control Panel under System 7)

.....

Details of any relevant hardware which could help us to answer your question:

.....

.....

.....

Now, use this space to describe your problem or question. Include as much relevant information as possible. Please continue on a separate sheet if necessary.

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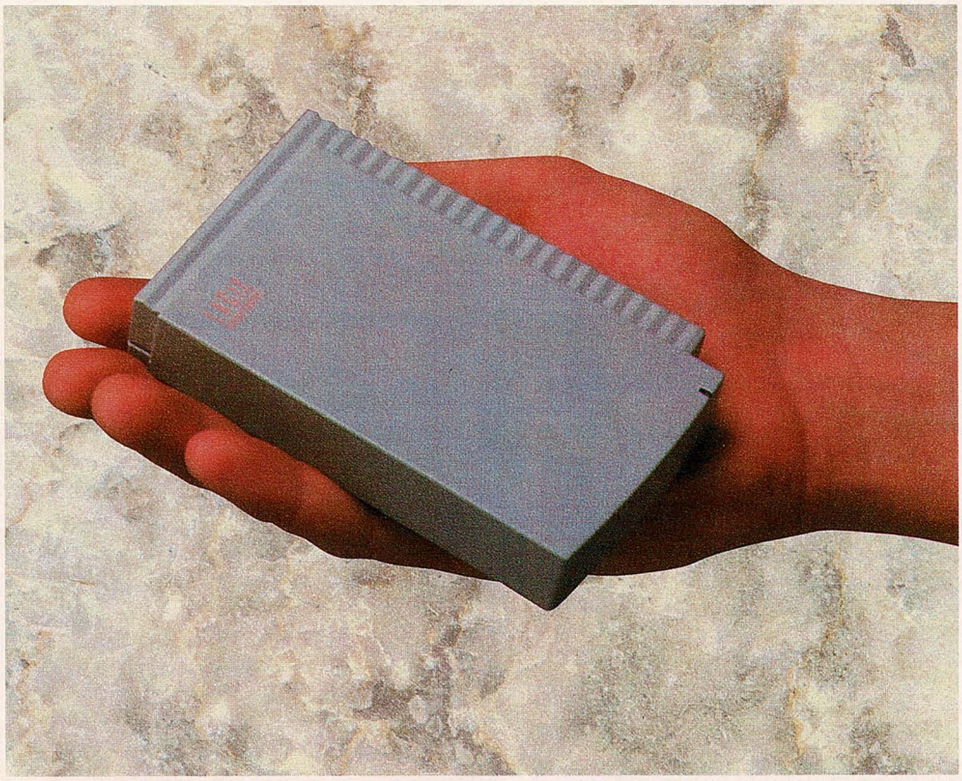

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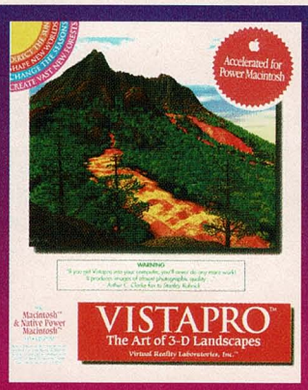

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Sample this!

You don't need to be able to play a note to create the smoothest symphony of the century – just build it all up from sampled sounds. Ian Waugh tests the pick of the samplers.

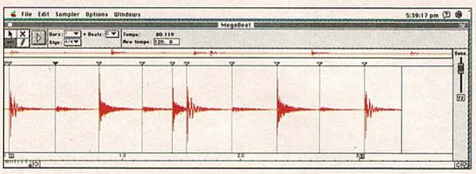
One of the exciting things about making music with the Mac is that you aren't limited to MIDI files. The two fastest-growing trends in music are direct-to-disk recording (which we'll look at in a month or so) and the use of samples.

Many garage bands create music entirely with samplers. They take drum loops and grooves, bass lines, and vocal snatches and combine them to produce a new piece of music.

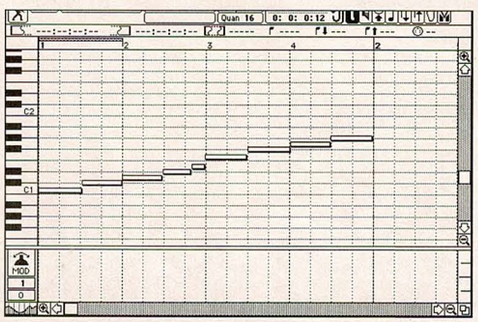
Editing on a sampler, even one with a large LCD, is not the most intuitive process, so software developers have produced a range of programs to help musicians handle digital audio almost as easily as they manipulate MIDI data.

ReCycle

Steinberg's *ReCycle* is a brand new program that does with sample loops what a sequencer does with individual drum sounds. If you have a MIDI drum track, it's easy to alter the timing, shift the drum beats around and change the drum sounds. Well, *ReCycle* enables you to also do that with sample loops. It can automate the process of making a sample groove fit the tempo of a song; it can change the tempo without changing the pitch and vice versa; and it can remove and replace any of the sounds inside the sample and change their volume.



This is a drum loop that has been 'ReCycled'. The triangles indicate where the slices occur.



The notes that trigger the slices have been loaded into *Cubase* and are now ready for further processing.

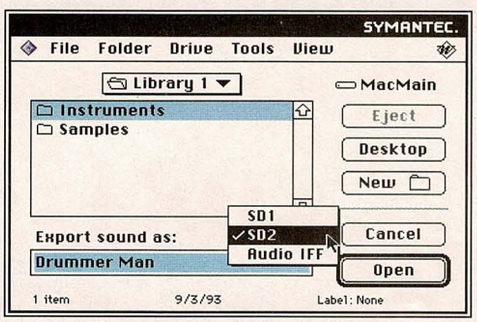
How does it do it? Well, it looks at the waveform and marks the loudest parts, dividing the sample into slices. In a drum groove these will generally correspond to the drum hits. It does this pretty much automatically; all you do is move a 'sensitivity slider'. The higher the sensitivity, the more slices you get. You can add slices manually, too.

The program assigns a pitch to each slice, so each note triggers a different slice. You then dump all this information – key assignments, slices and all – into a sampler. The program currently only supports Digidesign's SampleCell and Akai's S3000 range, but a forthcoming update will provide support for other Akai samplers, while future updates will support the Roland and E-max range.

You can also save a MIDI file containing the notes you assigned to the slices. Load this into a sequencer and, when you play it, the notes will play the groove in the sampler a slice at a time. This may sound a little complex, but it's a lot easier to do than it is to read about it.

Now the fun really starts! You can manipulate the notes in your sequencer and, as long as you keep the pitches intact, the changes will affect the sample. You can apply a swing quantise to it, change the tempo, substitute one sample slice for another and so on. Using a sequencer such as *Cubase*, you can apply the sample's groove to MIDI data.

The pack includes a CD containing loops and grooves to get you started. *ReCycle* is a superb piece of software. Easy to use and great fun, too. Even at a more basic level, it can help find a good loop point for any sample. Absolutely essential if you use sample loops.



You can save a sample in SD1 and 2 or AIFF formats, handy if you want to use samples in other sample-based programs.

- **Price: £199.**
- **Requires: SE/30 or better, 4Mb of RAM, System 6.0.7 or later, *Sound Manager 3.0*.**
- **For more details contact Harman Audio on 081 207 5050.**

Panel Partner

Steinberg's *Panel Partner* is not a sample editor as such, it's a front-panel emulator for the Akai S1000 and S1100 samplers. It is also compatible with the S1100ex and enables that sampler to function as a standalone unit.

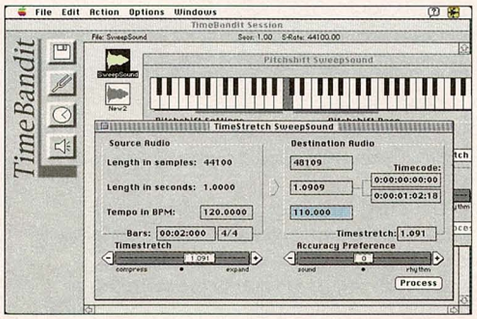
The program has been around for a few years and, according to Steinberg Support, it is unlikely to be updated to support the newer S3000 series. Still, there are an awful lot of S1000s out there – so many, in fact, that they are virtually the de facto sampler in music land.

It's a bit of a shame that it doesn't actually edit samples – although it does save you squinting at the LCD. If *Panel Partner* is not going to be updated, sales could undoubtedly be improved if the price were somewhat lower. Useful though the program is, at this price it will only interest short-sighted programmers and S1000 owners who can't stand LCDs – although there must be a few of those around.

- **Price: £209.**
- **Requires: Mac Plus or better, 1Mb of RAM, System 6.0.2 or higher.**
- **For more details contact Harman on 081 207 5050.**

TimeBandit

Steinberg's *TimeBandit* can apply time correction, pitch shift and harmonisation effects to a digital audio file. It can handle mono and stereo files in SoundDesigner and AIFF formats. It can apply a 25% vari-speed time correction to a file without changing pitch, and it can shift



Here we are using *TimeBandit* to timestretch a sample so it will play the same pitch at a slower tempo.

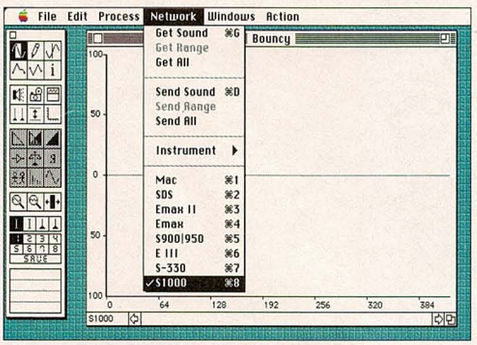
pitch by more than four octaves in a single operation. It can also generate up to 16-note polyphonic chords from a single tone sample.

If you have *Cubase Audio*, then you can access *TimeBandit's* function from within the program. *TimeBandit* is a very powerful program and a great utility to have in your sonic arsenal, although the price, alas, places it firmly in the professional domain and beyond the pocket of most users.

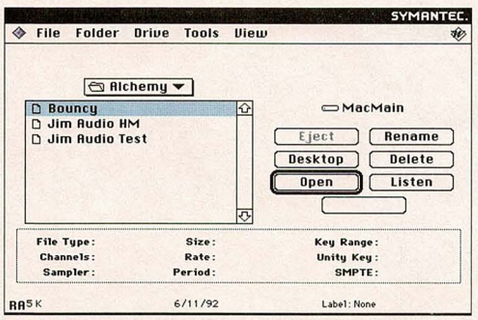
■ Price: £456.
■ Requires: LC or better, 1Mb of RAM, System 6.0.7 or higher and a hard disk. Digidesign sound card recommended.
■ For more details contact Harman on 081 207 5050.

ALCHEMY

Passport's *Alchemy* is the only dedicated sample editor for the Mac. It can load samples from a wide range of samplers, edit them and transfer them back. But it's not been without its problems: apparently the cost of technical support



Alchemy supports many major samplers, but technical support overheads caused Passport to discontinue it.



Alchemy can show you a lot of information about a particular sample before you decide to open it.

was so high that Passport decided to withdraw it from its catalogue. But despite this, users will not let it lie down and die, and there's a happy band who continue to use it. If you're one of those, you can now upgrade to the latest – and final – version: *Alchemy 2.6*. If you currently have version 2, it'll cost you £89. If you have version 1 (what on earth are you doing with it?), an upgrade'll set you back £149.

Note: you can't buy the complete program, only the upgrade – and it will then be specially ordered for you from the US. Arbiter warns that it could take a few weeks to arrive.

If you use *Alchemy*, the upgrade is worthwhile. Otherwise, you'll have to struggle on with your LCD and wait until another company dips into the sample editor market. It's that or switch to Digidesign's SampleCell, which comes with its own sample editing software.

■ Price of upgrades: £149 from version 1; £89 from version 2.
■ For more details contact Arbiter Pro MIDI on 081 2021199.

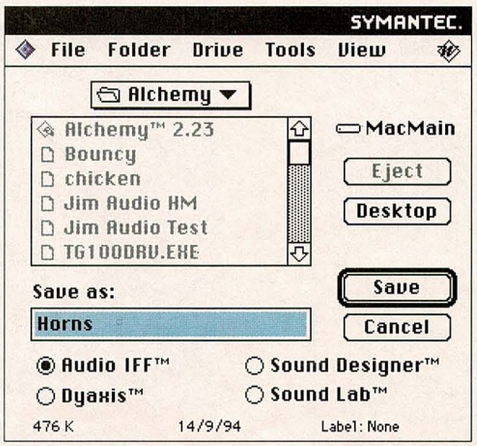
SAMPLESEARCH

SampleSearch was designed primarily for use with Digidesign's Mac sample card, SampleCell 2. It acts as a housekeeper, putting the samples, instruments and banks in the correct order so you don't have to worry about where they are on your hard disk. It can find and catalogue samples and it supports off-line volumes, too.

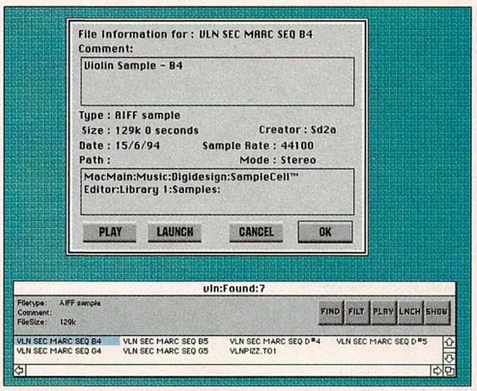
The search routine's blindingly fast. It can scan through 1 gigabyte of disk space and list hundreds of files in a few seconds. The search routines aren't limited to samples, either, and you'll find yourself using the program to search for any other file you may have lost.

Other features include the ability to read data from an audio CD and convert it to an AIFF file. This enables you to lift a sample directly from a sample CD and manipulate it on your Mac, without it ever leaving the digital domain. It can convert AIFF files to a SoundDesigner 2 format, or if you want to work on a PC, you can save them as *Windows'* WAV files.

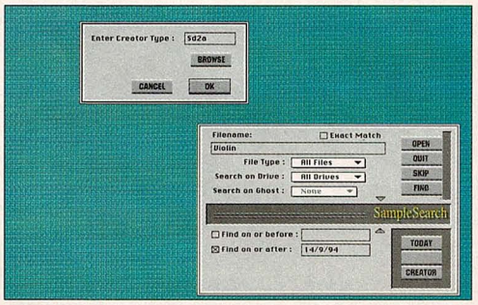
Future updates will include the ability to read Akai disks directly. Considering the huge number of Akai samples already available, this



Alchemy's capable of saving samples in four sound file formats: Audio IFF, Dyaxis, Sound Designer or Sound Lab.



Having found a file, *SampleSearch* can provide full information about it.



You can search by name, but *SampleSearch* has a wide range of additional search criteria.

will widen SampleCell's appeal enormously. If you have SampleCell, *SampleSearch* is quite simply essential. It's also a terrific utility if you work with sample CDs and digital audio.

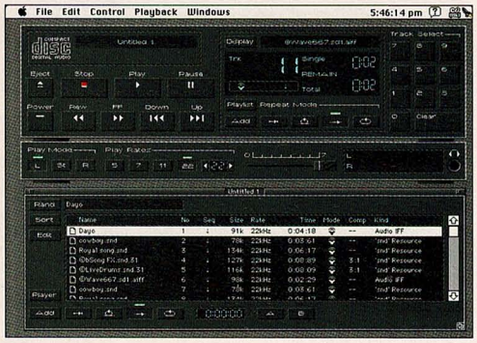
■ Price: £176.25.
■ Requires: any Mac, 4Mb of RAM, System 7.1. Digidesign's SampleCell 2, an audio card (like AudioMedia 2) and *Sound Manager 3.0* are recommended.
■ For more details contact Gallery Software on 081 200 8024.

AUDIOSHOP

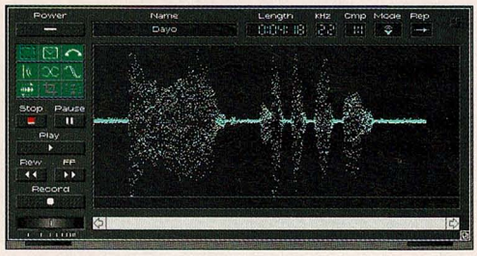
Opcode's *Audioshop* is two programs in one. It can play audio CDs from a CD drive attached to your Mac, as well as recording and editing digital audio samples. The CD player is a graphic work of art. Put it this way: if this doesn't impress your non-computer friends, nothing will! You can loop tracks and decide in which order they'll play using a playlist. It can also read files created with Apple's *CD Remote*.

Audioshop was upgraded a few months ago and the digital recording section now supports 16-bit recording and AV Macs. It can handle six popular sound file formats, including AIFF and SoundDesigner 2 files. It also supports Apple's *Sound Manager 3*, while a rather cheeky System Extension automatically converts SoundEdit files to *Audioshop* files.

Edit features include cut, copy and paste commands plus a number of processing functions. 'Envelope' enables you to change the volume of a selected area of the waveform and produce fade-ins and fade-outs. The 'Bender' can alter the pitch. What's more, you can apply 'Echo', 'Vibrato' and 'Flange' to selected areas,



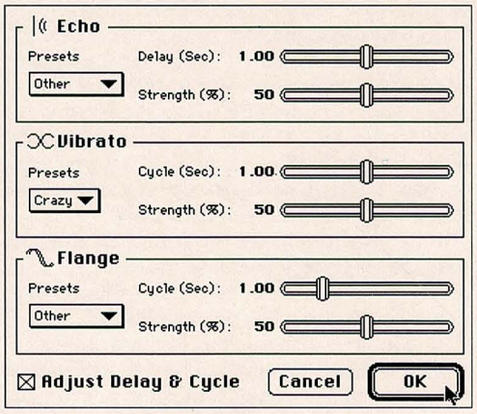
Is this not just the most zarjaz CD player you ever did see? The Mighty Tharg would be so proud.



Audioshop's waveform editor looks as good as the CD player, but it's a very practical layout, too.

and there's also a 'Reverse' function.

Audioshop's two sides come together in the playlist, where you can combine CD tracks with digital audio and decide in which order they play. If you want a flash audio CD player, this is it. The waveform edit facilities are a useful extra, though they aren't as inclusive as some dedicated editors like SoundEdit 16, which costs three times as much. *Audioshop* does a fine job of simple waveform editing, which could be useful for multimedia presentations.



As well as the usual edit facilities, *Audioshop* has a few extra processing functions.

- **Price: £89.95.**
- **Requires: Mac Plus or better, 2Mb of RAM, System 6.0.7.**
- **For more details contact MCMXCIX on 081 963 0663.**

JARGON BUSTERS

AIFF: Audio Interchange File Format. Apple's standard audio file format, which most sample-based programs can read.

Off-line volume: removable storage media. Samples consume vast amounts of disk space, so it's more convenient to store them on several removable hard disks or magneto optical disks than to fill your internal disk with them. When these disks are not physically connected to the Macintosh, they are said to be 'off-line', but some software will, rather usefully, be able to tell you what is stored on your off-line volumes.

Sample loop: a digital recording of a drum pattern, perhaps one or two bars long, set to play continuously so that it sounds like a continuous drum track.

SoundDesigner 2: the current Digidesign sound file format.

Swing quantise: takes a run of notes of equal duration and offsets every second one to create a swing feel.

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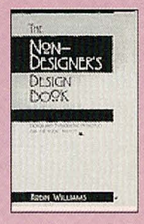

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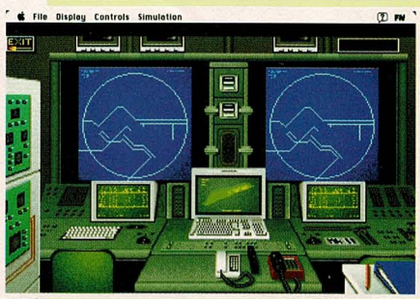
Fun

Fancy a quick blast? Feel like pushing some helpless followers about? Into golf, but don't like that walking business? You need a game for your Mac, mate. Ed Ricketts surveys the top 20. And straight in at number 20 is...

Deliverance

This is a brave attempt to turn your Mac into a console (albeit temporarily), and, on the whole, it works splendidly. Doing away with the 400-page instruction manual, *Deliverance* puts you in charge of a muscle-bound sprite as he leaps heroically around the levels in a medieval castle, slashing spiders, batting bats and being generally unpleasant to the fauna. Yep, it's a platform game – you can tell by the way you also have to collect keys to open doors. Best of all, it's a good one. The scrolling is acceptable even on slower Macs, and the graphics might even be described as good. *Deliverance* also offers enough meaty sound effects to keep the adrenaline going. Wonderful for a quick slash after work, if you see what we mean. (For more details see MACFORMAT 14.)

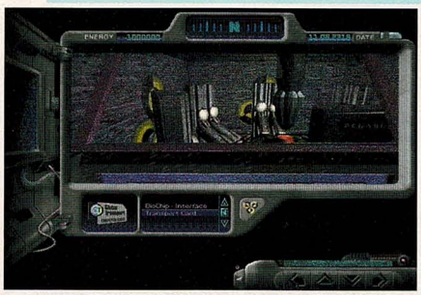
■ **Price: £39.99.**
Requires: any colour Mac with System 6.0.7 or above.
For more info call Softline on 081 401 0058.



Flying Nightmares

Come on, lads, don't try to fool us – this is a flight sim, isn't it? Don't be ashamed, it's really rather good. While re-enacting that famous battle, the Liberation of East Timor, you are placed in charge of a UN Task Force. In this role, you're not only responsible for bombing the land in the name of freedom, but also for planning the whole shebang in an extremely complex strategy section. Once you're in the air the smoothness and detail of the graphics will stun you for at least half-an-hour, but then you can get down to the serious business of strafing, bombing and viffing (don't ask). This is a marvellous combination of game genres, and is remarkably good value too. (For more details see MACFORMAT 14.)

■ **Price: £29.99.**
Requires: LC or better, 4Mb of RAM (8Mb recommended), 256-colour monitor. PowerMac or Quadra recommended.
For more info call Domark on 081 780 2222.



The Journeyman Project

There's been a lot of guff about 'interactive movies' in the games market, and while none have ever actually been produced, *Project* had a good stab at it. A complicated plot (which involves aliens giving the human race ten years in which to decide to be peaceful) interweaves with time travel to various ages, sumptuous rendered 3D graphics and plenty of wandering about to create this sort-of graphic adventure. *Project* can be immensely trying, not least because it's so damn slow a lot of the time, and it gobbles up RAM, but if you can stick with it you'll discover a rewarding, original game underneath. (For more details see MACFORMAT 1.)

■ **Price: £39.99.**
Requires: LC or better (although a Quadra or PowerMac is ideal), 256 colours, System 6 or 7, QuickTime 1.5, at least 5Mb of RAM and a CD-ROM drive.
For more info call Softline on 081 401 1234.

Chessmaster Pro 3000 CD

There's nothing quite so humiliating as being well and truly thrashed by a smart-arse chess program. Even Gary Kasparov knows the feeling (he was recently beaten by a home-grown chess game, and wasn't too pleased about it, apparently). *Chessmaster Pro 3000* doesn't just beat you, though, it grinds you into a pulp and arranges the pieces in formation. But it doesn't just have brains, it has looks too, with multiple 3D chess sets, a configurable board, and more fiddly options than you can fit into a government White Paper. And, of course, being on CD means you get spoken tutorials, sound effects and all that lovely gumph. Far too clever for its own good. (For more details see MACFORMAT 18.)

■ **Price: £39.99.**
Requires: any colour Mac with a CD-ROM drive.
For more details contact Mindscape on 0444 246333.

Crystal Caliburn

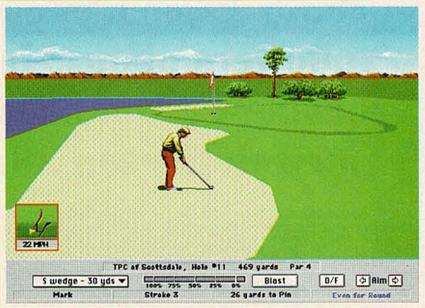
Caliburn is a superb implementation of the creaky old arcade pastime, which has suddenly become popular again. There's not an awful lot you can say about pinball – you're either good at it straight away, in which case get this, or you're awful at it but willing to practise, in which case get this. *Caliburn* only offers the one table (based around the legend of King Arthur, for heaven's sake), but it's packed to the glass top with goodies, such as a multiball, a plethora of ramps, lots of confusing flashy lights and some of the best ball mechanics you'll ever see on a Mac. A bit pricey for a game that'll probably only last for half-an-hour at a time, but think of it as a long-term investment. (For more info see MACFORMAT 13.)

■ **Price: £44.99.**
Requires: any Mac with System 6.0.7 or above, 4Mb of RAM and 2.8Mb of hard disk space.
For more info call Softline on 081 401 1234.

Sensational

PGA Tour Golf 2

Ah, the thud of leather against willow. Er, iron against... what is it they make golf balls out of? Plastic doesn't seem exotic enough. *[Get on with it! – Ed]* Right, fair enough. As you may have guessed, *PGA Tour Golf 2* is a golf simulation, and a really rather smart one at that. The seven courses on offer are mostly Tournament Players Courses, which basically means they're bloody hard. Of course, the 60 simulated professional golfers, including the punsome Fred Couples, find them singularly easy, but they're nice enough to give you some help now and again. It's not overly detailed graphically, but there are enough shades of green to keep you happy (plus a few tweetering birds now and then, which is always nice). In all, a polished and respectable sim full of options and gameplay. It almost makes golf seem fun. (For more info see MACFORMAT 12.)



■ **Price: £44.99.**
Requires: 2Mb of RAM on System 6 Macs, or 4Mb of RAM on System 7 Macs and 5Mb of hard disk space.
For more details contact Electronic Arts on 0753 549442.

Populous 2

Populous 2: more of the same, eh? Well, yes and no. While the basic object of the game remains the same as the ground-breaking original (that being to crush the opposing tribe by throwing whirlwinds, floods, knights, fires, volcanoes and coldsores at them, while swelling your own numbers and power), it's the fuller range of 'natural' disasters that keeps you at it here. Who could possibly resist ruining the opponent's perfectly-formed settlement by engendering a massive lava-spewing volcano in the middle of it?

Two-player modem play and improved graphics update this classic, although it's something of a slogger in that no single-player game lasts less than an hour. (For more details see MACFORMAT 14.)

■ **Price: £39.99.**
Requires: anything from a Classic upwards.
For more details contact Electronic Arts on 0753 549442.

Civilization

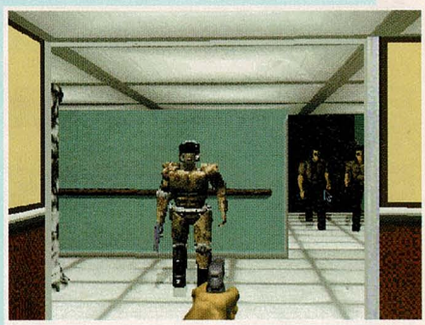
Along with *Populous* and *SimCity*, *Civilization* was one of the key players in defining the now well-established genre of god games. Beginning with Stone Age man and travelling right through to the future with the human race's escape into space, Sid Meier's modest little outing challenges you to create and sustain a civilisation.

The game is absolutely awesome in scope, and its primitive graphics don't matter a bit because there's just so much gameplay to be had here – whether it's dealing with a Roman uprising among your people or researching nuclear fission. The inevitable sequel, *Colonization*, is on its way (see page 26), but nothing could ever come quite so close to perfection as this. (For more details see MACFORMAT 2.)

■ **Price: £34.99.**
Requires: any Mac with System 6 or 7 and 4Mb of RAM.
For more details contact Microprose on 0666 504 326.

Sensory Overload

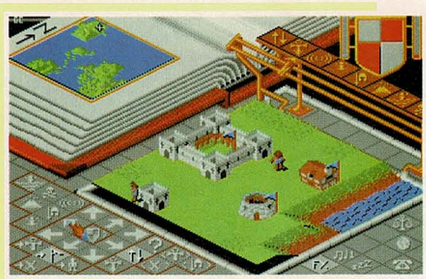
Not to put too fine a point on it, this is *Doom*. Well, as close to it as you're likely to get – at least until *Doom* arrives, that is. A first-person perspective blaster, *Sensory Overload* plonks you in the middle of a laboratory complex filled with the obligatory hordes of nasties intent on ripping your vitals out. Because of the amazing 3D graphics, complete with glorious texture-mapping and animated digitised enemies, you'll need at least a PowerMac to play this at anything like sensible speed, but if the power's there, you're in for a frenetic time with superb visuals and atmospheric sound. The folk at iD Software (the creators of *Doom*) probably aren't too pleased with this one. (For more details see MACFORMAT 17.)



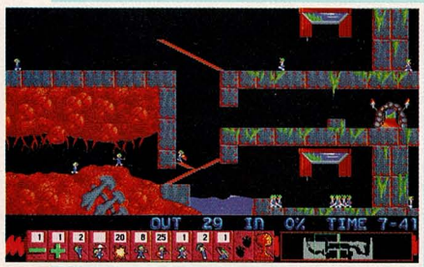
■ **Price: $50.**
Requires: LCII or better (PowerMac or Quadra recommended), System 6.0.7 or above, 2,506K free RAM and 4Mb of hard disk space.
For more details contact Reality Bytes Software on 0101 617 621 1555.

Populous

This one's about a billion years old and people are still playing it. And when you consider that the sequel, *Populous 2*, has the benefit of a greater number of natural disasters, the unyeilding popularity of this game is even more intriguing. Perhaps it's something to do with the complex-looking but actually ages-old nature of the gameplay. Perhaps it's something to do with the almost perfect pitching of the difficulty curve, which sucks you into the next level and keeps you playing into the early hours of the morning. Perhaps it's because you can look at almost any decent strategy game these days and truthfully say: 'They nicked that bit from *Populous*'. Whatever, it's still a demanding and engrossing game with some great graphics. (For more details see MACFORMAT 9.)



■ **Price: £39.99.**
Requires: any Mac with System 6.0.7 or above and 4Mb of RAM.
For more details contact Electronic Arts on 0753 549442.



Lemmings

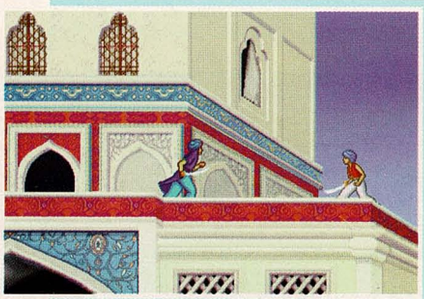
Lemmings. Lemmings, Lemmings, Lemmings. What more is there to say? Is there a sentient creature in the universe who hasn't tussled with, and been unutterably frustrated by, the strangely green, depressed rodents? A simple concept (protect the hordes of lemmings from themselves as they stumble aimlessly around the various levels) provides some fiendish puzzles of the 'Oh I *see* the solution now. It's so simple really' variety. Simultaneously nerve-frazzling and adrenaline-pumping, *Lemmings* has had many imitators (including its sequel), but none have ever bettered its brand of devilish ingenuity.

Price: £39.99.
Requires: LC or better, 2Mb of RAM and 256 colours.
For more details contact Softline on 081 401 1234.

The Secret of Monkey Island

This is the game in which the world at large is introduced to Guybrush Threepwood, pirate wannabe and bit of a girl's blouse. Young Guybrush, keen to make his mark on the high seas, gets all tangled up in an adventure involving the ghost pirate LeChuck. Along the way he encounters breath mints, piranha poodles, a sarcastic swordmaster, a dead head, more in-jokes than is healthy, and a million and one memorable lines. This seminal LucasArts graphic adventure broke a lot of ground when it was first released – it was funny, for a start. *The Secret of Monkey Island* is challenging but not unfair, and uses graphics in an amazingly cinematic way – you could even call it an interactive film if that wasn't insulting. Still fresh after all this time. (For more details see MACFORMAT 1.)

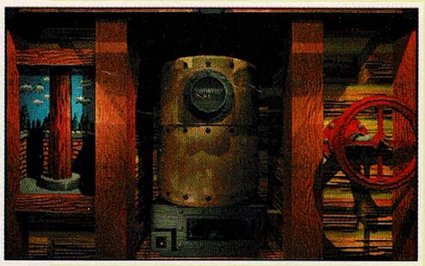
Price: £35.99.
Requires: LC or better, 2Mb of RAM and 256 colours.
For more details contact US Gold on 021 625 3388.



Prince of Persia 2

Prince of Persia – or 'Ponce of Persia' as he's known around here, thanks to his catchy line in all-day pyjamawear – is the star here. The classic arcade platformer from a zillion years ago returns, and it's so souped-up it's distinctly minestrone. OK, so the plot's nowt special: Mr Prince yomps around 101 platform screens, meeting a sticky or pointy death time and time again. This is a real test of arcade skill: most of the jumps have to be pixel-perfect or it's spike up the bottom time. In this respect, it's an intensely annoying game. However, the amazing Disney-like animation and lush backgrounds should soothe your frustration – well, at least until the next perilous situation arises. Nasty, but nice. (For more details see MACFORMAT 15.)

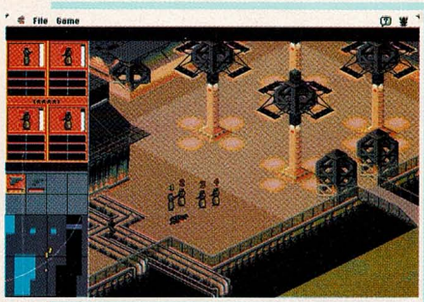
Price: £39.99.
Requires: any 256-colour Mac with System 6.0.7 or above, 4Mb of RAM and 15Mb of disk space.
For more details contact Electronic Arts on 0753 549442.



Myst

Could this be true? An original, surreal adventure from the pit of sequels and rehash that is America? Yep. *Myst* is a beautiful, free-form affair with graphics that make *The 7th Guest* appear amateurish. Having stumbled upon a book called *Myst*, you're transported to a deserted island containing plenty of bizarre buildings, a message from some odd inventor and a mass of puzzles. And that's only the beginning: later on you travel through time willy-nilly to equally bizarre ages and further enigmas. With amazing 3D graphics rendered on a Silicon Graphics machine and especially atmospheric sound, *Myst* is a CD-ROM par excellence – although its simplistic, infuriating puzzles might not suit everyone. Still, stuff 'em. (For more details see MACFORMAT 9.)

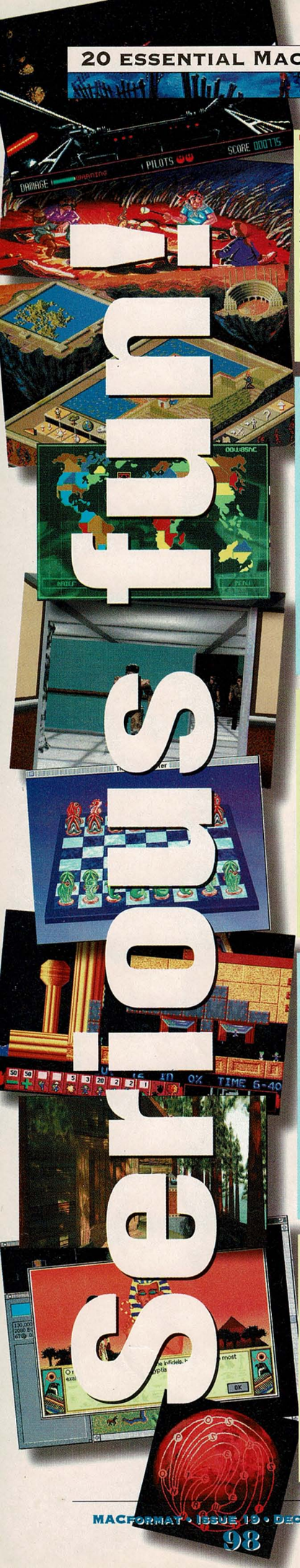
Price: £39.99.
Requires: any Mac with System 7.0.1 or higher, 4Mb of RAM, 256 colours and a CD-ROM drive.
For more details contact Electronic Arts on 0753 549442.



Syndicate

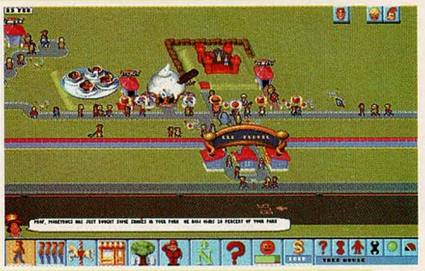
Let's not beat around the bush here: *Syndicate* is *violent*. If you're the sort who winces whenever someone cuts themself on a medical programme, *Syndicate* ain't for you. It's the future – again – and huge corporations own whole continents. In order to maintain their position, though, they're constantly forced to send out cyborg agents to neighbouring rival countries and blow away any opposition they find. It's a dirty job, but, fortunately, you get to do it. Each mission lands your agents into the *Blade Runner*-style cities, where they wander around trying to fulfill the mission objective. Huge numbers of agents, innocent citizens, police and others are usually caught in the ensuing destruction, especially during the later stages when you can upgrade your 'borgs and give them greater firepower. *Syndicate* is as difficult as it is amoral, but it keeps you at it long into the night – not least because of the excellent graphics and audio effects. An almost perfect mix of strategic planning and total violence. (For more details see MACFORMAT 13.)

Price: £44.99.
Requires: any Mac with System 7 or above and 2.5Mb of RAM. Colour Macs need 12Mb of hard drive space. Mono ones need 4Mb.
For more details contact Electronic Arts on 0753 549442.



Theme Park

If *Theme Park* were a person, it'd look like *SimCity 2000* wearing a red nose and a chicken suit. *Park* offers all the challenging strategy and megalomania-encouraging features of *SimCity 2000*, but it's much less po-faced about the whole affair. Instead of building and maintaining a city, you create your very own theme park. The idea is to invest in rides, entertainers and sideshows, research new attractions to scare the living daylights out of your visitors, and rip them off wholesale with a few greasy burger stalls. It's manic, lovely to look at, bloody hard and dangerously addictive, in that order. (For more details see MACFORMAT 18.)



■ **Price: £39.99.**
Requires: LC or better, at least 16 colours (or shades of grey), 13Mb of hard drive space, and 2.5Mb of RAM.
For more details contact Electronic Arts on 0753 549442.

The 7th Guest

Phew! Blimey! Cor! Such were the comments directed at *Guest* when it first appeared on PC CD-ROM a while ago, and now it's on the Mac it's even better. *Guest* tells the story of one Henry Stauf, a kindly toy-maker who's actually a child murderer. With the last of his money, Mr Stauf builds a huge mansion chocka with bizarre and macabre puzzles, and then invites six people to stay. Each has a skeleton in the closet, and each eventually meets with a grisly death. But what of the seventh guest? A-ha, that would be telling.

Guest was the first game to use rendered 3D graphics with limited movement throughout, and the effect is staggering. With digitised video sequences, spooky audio effects and genuinely disturbing plot twists, *Guest* has the highest 'show off' factor around. Of course, the gameplay's slightly lame – all you do is solve puzzles to access another part of the house and advance the plot. But when it looks and sounds this good, you won't care. Really. (For more details see MACFORMAT 14.)

■ **Price: £49.99.**
Requires: LCII or better running at 20MHz or higher. System 7 or above, 4Mb of RAM and 10Mb of hard disk space. 256-colour display and a CD-ROM drive.
For more info call Virgin on 081 960 2255.

Rebel Assault

Da daaah dadada daaaaah daah... as soon as the *Star Wars* theme music kicks in at the beginning of this CD-ROM epic (that was it, in case you're wondering), you know you're in for an audio-visual treat. If anyone knows how to stun you with visuals it's LucasArts, and here it's done an incredible job with a simple shoot-'em-up based on sequences from the three *Star Wars* films.

3D graphics, which have been derived from digitised video, and full CD-ROM sound deliver an incredible slice of Jedi atmosphere that you'll want to show off to your friends again and again. The dazzling Death Star trench-run alone is worth the money. (For more details see MACFORMAT 18.)

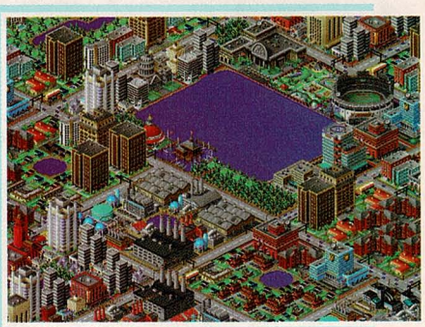
■ **Price: £49.99.**
Requires: LCIII or better, System 7 or above, 4Mb of RAM, 256 colours, 640 x 480 resolution and a CD-ROM drive (double-speed recommended)
For more details contact US Gold on 021 625 3388.

SimCity 2000

It was perhaps inevitable that *SimCity* would be updated for the '90s, but slightly less predictable was that it would be just as good as the original title – if not even better. The basic challenge remains the same: to build and foster your city, to cater to the demands of the sims living there by providing housing, police, fire protection, water, recreational areas – in fact, everything Milton Keynes doesn't have.

The new version includes a sumptuous 3D display with incredibly detailed graphics, and there are loads of other enhancements too, such as the underground water-pipe section. The game also includes an excellent soundtrack.

Far from being a rehash with some pretty graphics, *SimCity 2000* is a completely new game and could quite easily take over most of your life with its wealth of detail and almost infinite possibilities. Fine stuff indeed. (For more details see MACFORMAT 9.)



■ **Price: £39.99.**
Requires: any Mac with System 7 or higher, 2Mb of free RAM and 256 colours.
For more details call Maxis on 071 490 2333.

Monkey Island 2: LeChuck's Revenge

It had to happen, not least because *Monkey Island* never actually revealed its secret in the first game (that's the big twist at the end of this sequel). Despite his demise, thanks to some skilful root beer manipulation at the hands of Guybrush, LeChuck's back – and he's not entirely happy with the situation. Now a fully-fledged pirate and boring everyone to tears with his not-very-intrepid stories, Guybrush is once again on the (en)trails of LeChuck and his crew. This time he's determined to finish LeChuck off for good and, to that end, enlists the help of some dodgy voodoo. Bigger, better, more, this game is stuffed with gorgeous graphics and some truly marvellous gags. *Monkey Island 2* avoids being just a sequel. Lobby LucasArts for *Monkey Island 3 now*! (For more details see MACFORMAT 4.)

■ **Price: £49.99.**
Requires: LC or better, 2Mb of RAM and 256 colours.
For more info call Softline on 081 401 1234.

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Call for new titles and those not listed - we've loads more!

♦ Item not yet released - leave a phone number and we are happy to contact you on the day of release.

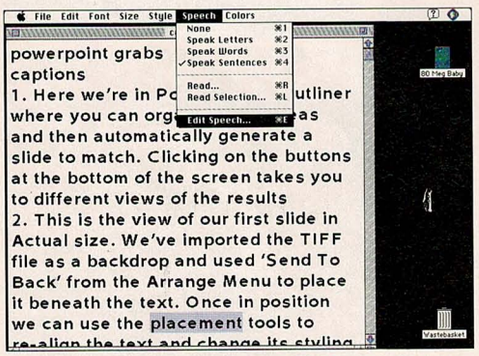
IntelliTalk

For less than £60, you can now buy a word processor that reads your work to you. Andy Storer listens to what *IntelliTalk* has to say...

Considering it has the capacity to take any text file and immediately read it back to you, *IntelliTalk* is ludicrously easy to install. There are no System Extensions involved – all you have to do is copy a single 285K application on to your hard disk and you're away.

Once it's up and running, you're confronted by a plain, no-frills word processor – in fact, the term 'text engine' would probably be a more accurate description. Here you can type in your text, select Read from the Speech menu and – hey presto – a synthetic voice starts pronouncing the words and sentences.

While the voice used – a robotic twang the like of which hasn't been heard since the days of early '50s sci-fi films – certainly wouldn't win any awards for elocution, its attempts to pronounce your text correctly are extremely good. So much so, in fact, you can't help wondering how its wide command of RoboEnglish has been compressed into just 285K.


File Edit Font Size Style Speech Colors
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Speak Words ⌘3
✓Speak Sentences ⌘4
Read... ⌘R
Read Selection... ⌘L
Edit Speech... ⌘E
powerpoint grabs captions
1. Here we're in Pc utliner
where you can orgi as
and then automatically generate a slide to match. Clicking on the buttons at the bottom of the screen takes you to different views of the results
2. This is the view of our first slide in Actual size. We've imported the TIFF file as a backdrop and used 'Send To Back' from the Arrange Menu to place it beneath the text. Once in position we can use the placement tools to
80 Meg Baby
Wastebasket

When you open a document in *IntelliTalk* the only sign that it's a talking word processor is the 'Speech' menu. You can instruct *IntelliTalk* to read back the document on screen. When it mispronounces a word, call up the speech editor.

IntelliTalk can talk to you in two ways: you can set it to speak as you type, or it can read back what you've written previously – either in part or in its entirety. So unless you want every typing error read back to you as it happens (which in my case would be as comprehensible as Rab C Nesbitt with a mouth full of cotton wool) your best bet is to configure *IntelliTalk* to read your prose after you've written it.

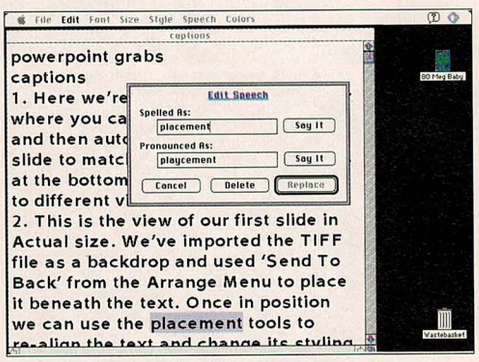
You can then set it to read through a document either by letter, word or sentence. If, or more likely when, the resultant speech is pronounced incorrectly, you can halt the proceedings, call up a speech editor, type in the mispronounced word and enter a better phonetic replacement. And don't worry if it still doesn't sound right – you can repeatedly test your phonetic equivalents until it does.

However, *IntelliTalk* does a surprisingly good job of recognising the vocabulary of everyday English; it's only likely to be caught out by more specialised, technical and esoteric words. But these can be added to its library of pronunciation, so when you've corrected it once, it'll never make the same mistake again.

As a word processor, it's low on features: apart from its own documents, it'll only open plain text files, and there's no spell-checker, thesaurus or DTP pretensions. There's the usual range of editing and styling features that you'd find in the most basic of early Mac shareware titles: you can cut, copy, paste and alter font and text size, but not much else.

There is, however, a handy facility to change foreground and background colours. This is presumably because the product is geared, at least in part, to the partially sighted, for whom the option of running, say, bright green text over a black background in 64 point text is highly desirable, if not essential. And because you can change this to any of the Mac's built-in colours, you can use this same facility to provide the colour combination you find most relaxing. There's also a File menu item that enables you to capture your new style settings (along with any new additions to the speech pronunciation library) as permanent defaults.

If you think all this sounds easy enough for a kid to use, then you'd be right. *IntelliTalk* is a great educational tool. OK, the RoboVoice does get a little tiresome after a while, but then preschool attention spans being what they are, this doesn't really matter. This aside, the program's facility to replace its standard text menus with pictorial equivalents adds to its functionality as a fun word processor for kids. *Andy Storer*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Pronounced As:
playcement
Say It
Cancel
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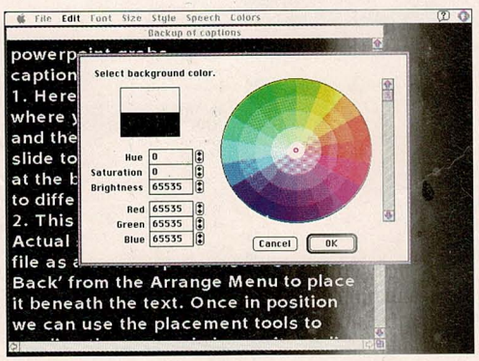
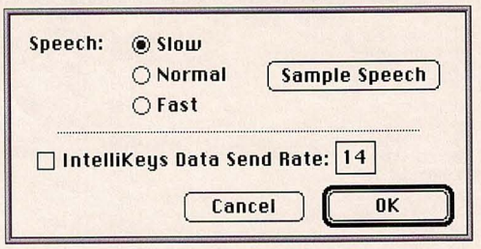
Replace
2. This is the view of our first slide in Actual size. We've imported the TIFF file as a backdrop and used 'Send To Back' from the Arrange Menu to place it beneath the text. Once in position we can use the placement tools to
80 Meg Baby
Wastebasket

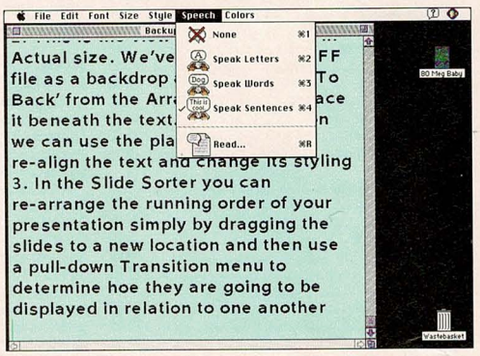
Here we are correcting the program's pronunciation of the word 'placement' by providing the correct phonetic equivalent – although working out what that is, is really a case of trial and error and demands a lot of patience.


File Edit Font Size Style Speech Colors
Backup of captions
Select background color.
Hue 0
Saturation 0
Brightness 65535
Red 65535
Green 65535
Blue 65535
Cancel
OK
Back' from the Arrange Menu to place it beneath the text. Once in position we can use the placement tools to

The 'Colour' menu enables you to customise the colour of your text and the background of the document itself – especially useful for the partially sighted, or anyone suffering from eye-strain from using black and white word processors.



The 'Preferences' menu enables you to specify the speed at which the program reads the instructions from your keyboard. If your Mac has limited memory, slow down this rate and your Mac won't crash if you quickly type in long macros.


File Edit Font Size Style Speech Colors
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Read... ⌘R
Actual size. We've
file as a backdrop
Back' from the Arr
it beneath the text.
we can use the pla
re-align the text and change its styling
3. In the Slide Sorter you can re-arrange the running order of your presentation simply by dragging the slides to a new location and then use a pull-down Transition menu to determine hoe they are going to be displayed in relation to one another
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The addition of picture menus make *IntelliTalk* ideal as a learning tool for even the youngest children. You can also disable some of the text mode's more complicated menu items in order to make it even easier for kids.

INTELLITALK

Price: £57.
Requires: any Mac running System 6 or later.
For more details contact KCS on 0703 584314.

Features 70%
It's not exactly teeming with features, but it does exactly what it's supposed to.

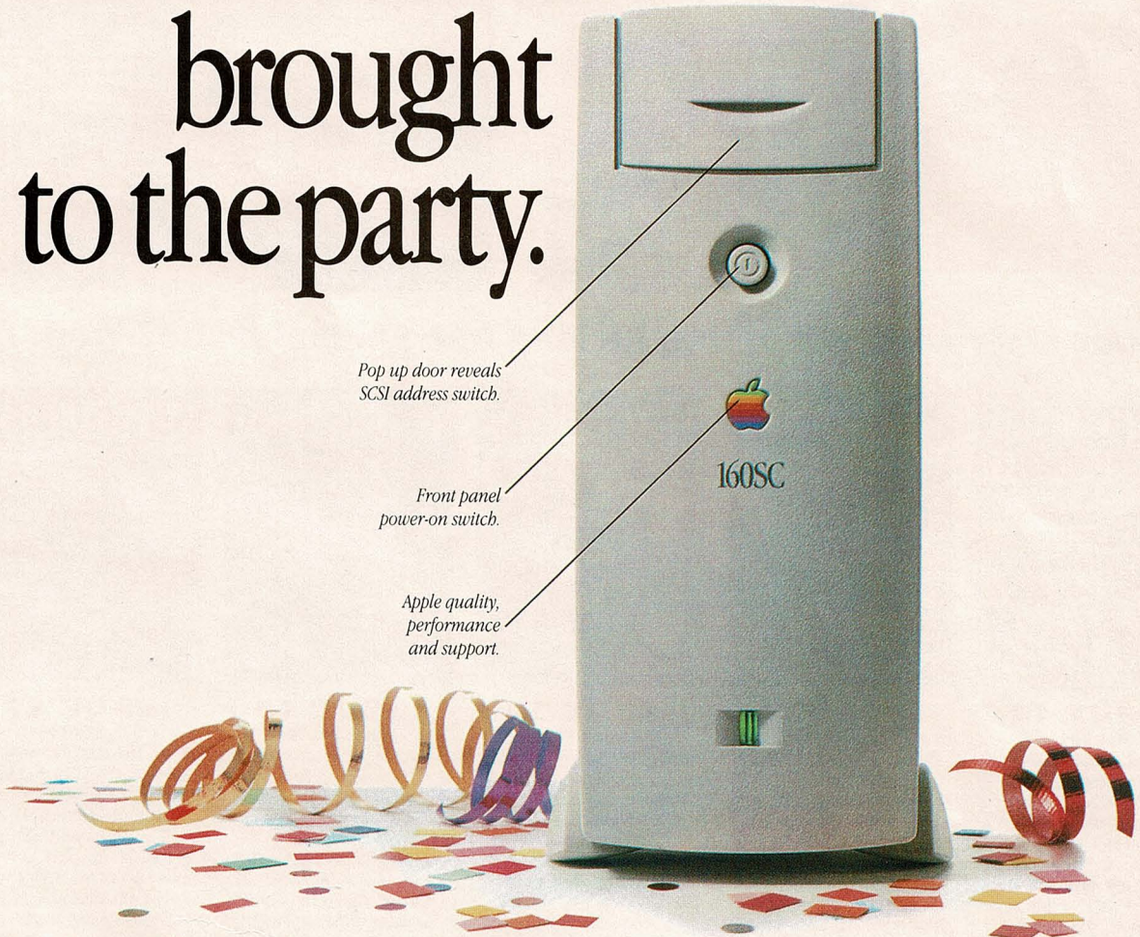
Ease of use 95%
Applications don't come any easier to use than this one.

Documentation 90%
Although it's not really needed, the manual is clear and covers every aspect of the program.

Value for money 90%
A very attractive price, even if all you want to do is write a few letters.

MACFORMAT RATING 86%

Before you consider a third party external drive, look at what we've brought to the party.



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May 1994

■ **On the disk:** *Prince Of Persia 2* demo; *Scrapz*

■ **Inside:** What you can do with shareware; hard disks, removables and optical drives; tips for using colour; a special report on CD-ROM technology and primary schools; *QuicKeys 3*, *INITPicker 3* and *PGA Tour Golf II* reviewed

ISSUE 13
June 1994

■ **On the disk:** *Syndicate* demo; *Disinfectant 3.41*

■ **On the CD-ROM:** sorry, CD-ROM edition is no longer available

■ **Inside:** How to double your RAM and disk space – without buying extra hardware; *Print Shop Deluxe*, *ColorStation* and Fargo Primera printer reviewed

ISSUE 15
August 1994

■ **On the disk:** *GrayStation*; *Vistapro* demo; *Quill*;

■ **On the CD-ROM:** sorry, CD-ROM edition is no longer available

■ **Inside:** art on the Mac, including reviews of *Dabbler*, *Fine Artist* – and the Wacom, CalComp and Summagraphics tablets, plus a preview of *11th Hour*

ISSUE 16
September 1994

■ **On the disk:** *ColorStation 2* and *HomePublisher* demos

■ **On the CD-ROM:** sorry, CD-ROM edition is no longer available

■ **Inside:** our guide to weird Mac software; create charcoal effects in your art package; plus reviews of *Multimedia Workshop*, *HomePublisher* and *Return to Zork*

ISSUE 17
October 1994

■ **On the disk:** *Crunch 2.0* and *Conflict Catcher* demo

■ **On the CD-ROM:** sorry, CD-ROM edition is no longer available

■ **Inside:** discover how to future-proof your Mac with our top add-ons; plus *Sensory Overload*, *WordPerfect 3* and the best presentation packages reviewed

ISSUE 18
November 1994

■ **On the disks:** trouble-shooting utilities, complete Internet software bundle

■ **On the CD-ROM:** *ClarisWorks 2.1*, *Rebel Assault* and *Sensory Overload* demos

■ **Inside:** discover how to beat those startup problems and crashes; plus *Norton Utilities 3* vs *MacTools 3* and *Excel 5* reviewed

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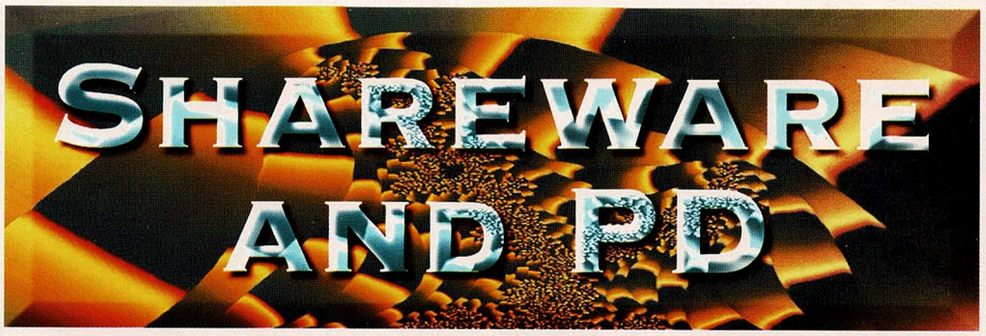


If you want to know what's hot and what's not, then cast your eyes over Derek Smith's round up of the latest shareware from the Internet.

Despite the name of this column, there's very little Public Domain stuff around nowadays because software authors release their goodies as freeware, not PD. What's the difference? A breach of copyright and a legal case if you're not careful, that's what. Anyway, here's the best of this month's delve into the internet, and boy, is some of it strange...

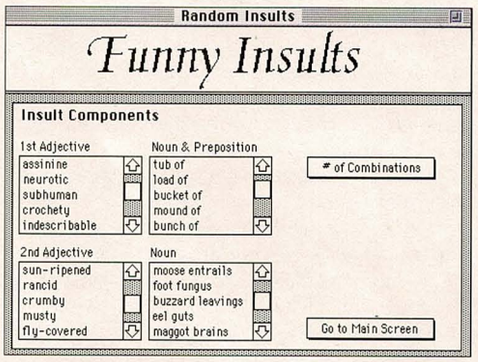
Random Insults

INSULT GENERATOR

Freeware

'You revolting excuse for defective sewage sludge!' *HyperCard* strikes back, and this time it's armed with rude prepositions.

This ingenious stack generates random insults created from base units of adjectives, prepositions and nouns. The stack comes with enough predefined parts to create no less than 1,244,126 insults. And if that it isn't enough, then you can add your own adjectives to customise those insults to really hit home. This is an invaluable tool for masochists everywhere.



Random Insults is a great stack to have close at hand if you have trouble thinking up really horrible insults when making phone calls to your bank manager.

Sourcing the shareware

We often get calls from keen readers who want to know where they can get hold of some of the shareware we review in these pages. Well, here are some of the ways:

1. Buy the CD-ROM version of MACFORMAT, because all the shareware we review is on there in a separate folder. There's also a wealth of other shareware on the CD, which we've sorted into categories for you.

2. Write to a shareware dealer; there are several that advertise in the back of MACFORMAT. They should have the program you are after, especially if they subscribe to our CD!

3. Use the Internet, if you have access. One of the best sources around is Imperial College at src.doc.ic.ac.uk. Use ftp to connect (login: anonymous; password: your E-mail address) and "cd" to computing/systems/mac. Personally I use the umich directory, but sumex is fine as well.

4. In a few months we will be setting up our own bulletin board using a brand new version of a wonderful BBS program, which should be absolutely brilliant, and a joy to use. We will let you know as soon as it is up and running. Future Publishing is also about to become an Internet site, so you'll soon be able to access us like any other Internet server.

5. Local user groups often have libraries of shareware, so see if you have one near you. There are some listed in the Reader Ads section (see page 122).

Finally, wherever you get your shareware, beware of viruses. At the time of going to press, *Disinfectant 3.5* (on MACFORMAT 14's cover disk) was the best and cheapest way of staying safe.

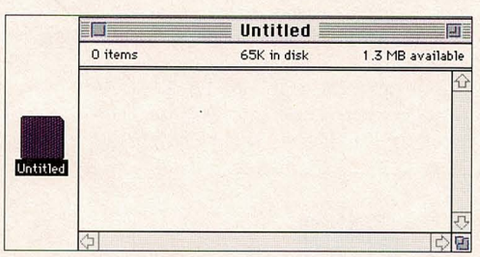
DiskSweeper 1.0

FLOPPY DISK UTILITY

Freeware

If you insert a blank floppy disk that's been lying around for a while, you might be confused to find out that there's 50K or so 'in disk'. What an incredible cheek. I mean, when I buy a blank VCR tape I don't expect to find ten minutes of *Aerobics for Poodles* at the beginning. Let's face it, it's bad enough that high density disks are called 2Mb disks when, in fact, they only hold 1.3Mb.

The reason for this mysterious 50K lies in the Desktop file. When you delete stuff from your disk, the Desktop file often doesn't recognise the fact properly and becomes over weight. You could try re-building the Desktop by holding [option] and [command] as you insert the floppy, but this doesn't work if there are no files or folders on the disk. *DiskSweeper* solves this terrible dilemma. All you have to do is drag and drop your offending floppy's icon on to *DiskSweeper* and the Desktop is deleted and then recreated to take up just 1K of space.



To solve the problem of phantom files, you can grab hold of your Mac, shake it vigorously and shout at the top of your voice 'Look, there's nothing there you stupid machine!' Alternatively, you could use *DiskSweeper*.

Smaller Installer

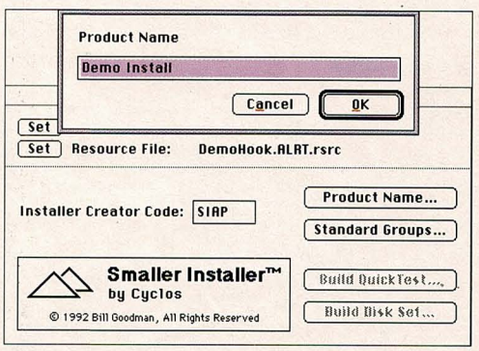
PROGRAM INSTALLER

Shareware up to $1,000

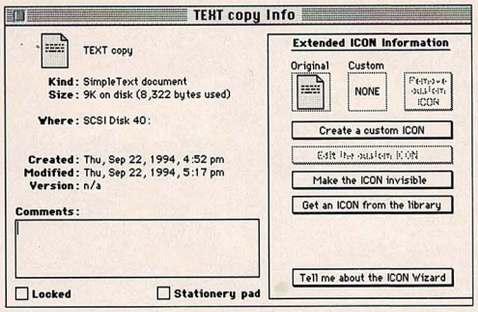
$1,000 for a shareware program may seem a little bit expensive, but many people have already forked out all that dosh for the right to use this program. *Smaller Installer* creates a compacted archive on one or more floppy disks, which can then be distributed commercially. The people you send it to can then double-click the archive to decompress it. Because this program halves the size of your data, it will halve the number of disks needed, therefore saving you money, and possibly even paying for itself.

If you use any other compacting software such as *StuffIt* or *Expander Pro*, you may be wondering why anyone would pay for this ability when these two programs do the same thing for a tiny fraction of the cost. Well, *Smaller Installer* has a couple of functions that other compacters don't have. The most important of these is its ability, when decompacting, to install items in the System Folder.

OK, this isn't essential – you could include a note along with the archive to let the users know that they have to put these items in the System Folder – but people don't like reading notes, beginners get confused, and this is just more professional. You can also have a customised screen that will appear when a user is



Divide and conquer with *Smaller Installer*, a program that enables you to create your own custom installation routines.



Dragging an icon on to *ICON Wizard* brings up an extended Get Info screen from where you can edit the icon.

installing your software, which helps to add that professional feel.

If you have software that you want to distribute in a professional manner, then *Smaller Installer*, like road works, is right up your street.

ICON Wizard

ICON CREATOR

Shareware $22

Making your own icons is great fun, but it can be a little tricky. *ResEdit* is the most complete icon editor, but you may want to consider *ICON Wizard* for its ease of use. Drag an icon on to the utility and you're presented with an extended Get Info window. From here you can bring up a screen to edit your chosen icon.

It's not as sophisticated as *ResEdit*. For instance, you can't create a separate mask or different icons for black and white or colour displays, but this will only be important if you create icons to send to other people who have different displays from your own.

As a simple icon editor for personal use, this is a well thought-out program. Recommended for people who are reluctant to use *ResEdit*.

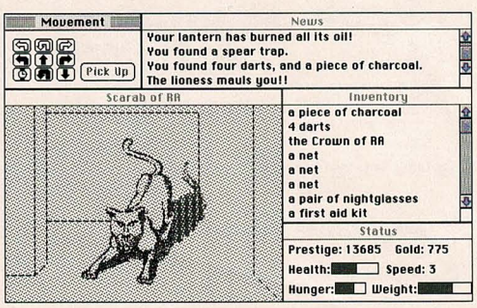
Scarab of RA 1.4

ADVENTURE GAME

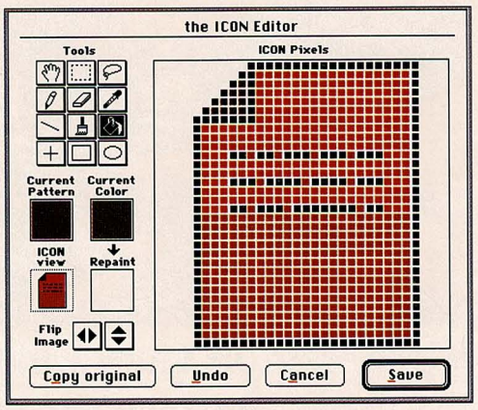
Shareware $10

I can remember so proudly that day three years ago when Apple reduced its prices and, at last, I could afford to buy a Classic 2/40 for just £800. Three years later I now own a machine that can't run 99% of the games available. So *Scarab of RA* was very welcome as it runs quite happily on a Classic.

Your task is to navigate a series of 3D mazes, searching for three ancient artifacts. The levels are joined by a doorway, but once you enter the next level, there's no going back. The levels are randomly generated, and items are scattered around the mazes. These include nets and



Hello, nice pussy cat. Would you like a bowl of milk then? Ouch... she just bit me. Eat this tranquilliser dart, sucker!



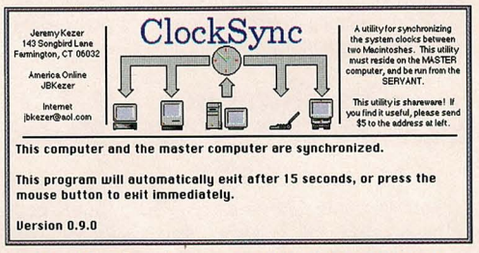
ICON Wizard, a simple painting program enables you to change the icon. There's also a useful button that flips the image horizontally or vertically.

tranquilliser guns for dealing with the creatures in a politically correct, non-harmful manner.

These creatures include poisonous snakes and fierce lionesses. It seems rather unfair that they can poison you and bite your leg off, whereas you have to be sensitive to their rights as living beings. I want a bazooka!

The most dangerous enemy you encounter is an undead mummy. There is only one way to deal with him (or I suppose it should be her), but that would be giving the ending away.

This is a simple game that runs along at quite an adequate speed, and it should keep you occupied for quite a while. The $10 fee is just about right, too.


Jeremy Kezer
143 Songbird Lane
Fennington, CT 06032
America Online
JBKezer
Internet
jbkezer@aol.com
ClockSync
A utility for synchronizing the system clocks between two Macintoshes. This utility must reside on the MASTER computer, and be run from the SERVANT.
This utility is shareware! If you find it useful, please send $5 to the address at left.
This computer and the master computer are synchronized.
This program will automatically exit after 15 seconds, or press the mouse button to exit immediately.
Version 0.9.0

Use *ClockSync* to make sure your clock is accurate or you might miss the beginning of *Home and Away*. Actually, now that I think about it, don't bother.

ClockSync

TIME SYNCHRONISATION

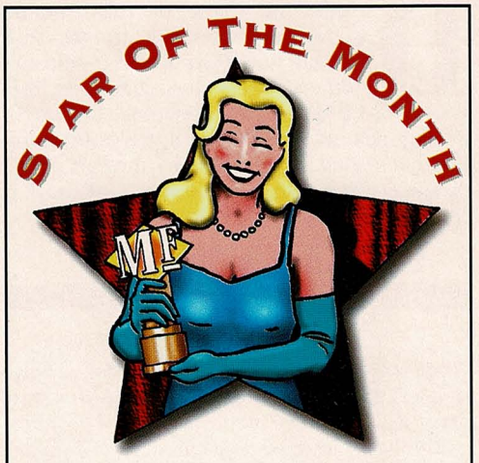
Shareware $5

You'll have noticed that the Mac's internal clock is economical with its accuracy. This means that you have to take the time and trouble to reset it every so often, which isn't so bad with just one Mac, but if you maintain a large network it can be a real headache.

ClockSync is a wonderfully simple program and I haven't come across anything else like it before. All you have to do is install a master copy on the file server and make sure you keep the clock accurate on that one machine. Then run *ClockSync* from any Macintosh on the network and it cleverly seeks out the master copy and reads the time from that Mac.

For speed, you could put an alias in the Apple menu, or for super accuracy, you could pop the application in the Startup Items folder in the System Folder. Every network manager should have one.

Come on, everybody, join in with the spam song! 'Spam spam spam spam spam spam... erm, what comes next?'



XoLaunch

APPLICATION LAUNCHER

Freeware

This is a fantastic little program that was e-Mailed to us by Leon Bubb. Although it will be useful to anyone, the main beneficiaries will be those users with a 4Mb Macintosh who find that they don't have quite enough memory.

No matter how hard you try, it's impossible to get System 7 to run in less than 1 megabyte of RAM – and some programs need a good 3Mb to get out of bed in the morning. One program that's always running is the Finder. Maybe you don't think of it as a program, but that's all it is, a program to display icons, format disks and other mundane little tasks. The point is, when you are using an application, you don't actually need the Finder open in the background.

XoLaunch starts off by quitting the Finder, and then offers you the opportunity to open an application. With the Finder out of the way, you will have much more room to open your chosen application. To get it back, all you have to do is quit *XoLaunch*, and everything will return to normal. Be sure to keep this program close at hand.

SuperSpam 1.2

SPAM SIMULATOR

Freeware

This is definitely one for all you chopped ham freaks out there. Open this program and your dreams will be realised as a small picture of a can of spam appears on your screen. But wait, that's not all. If you move your pointer over the picture, your Mac triumphantly cries out, 'Spam!' (courtesy of the *Monty Python* team). This works even when the program is only running in the background. Wow!

I have spent several sleepless nights pondering the vagaries of mankind and why any-

Thermometer

TEMPERATURE INFORMATION

Freeware

At last you can discover what the temperature is in Colorado. Exciting or what? You will need an Internet connection, though, so if you don't have one then rush out and buy one now (Sainsburys sell one for a very reasonable £3.95).

***Thermometer* can use the immensity of the Internet to communicate with sites around the world to discover what the temperature is at different locations – well, it could if there were instructions on how to do this. The only Internet address provided is one in Colorado where the author lives. The worst thing is that there's already plenty of detailed weather information on the Internet.**

This program doesn't calculate temperature by guesswork, but rather relies on people around the world typing in that piece of information (they're obviously not very busy in Colorado). I couldn't get the program to work anyway, largely because there's staggeringly little documentation on what to do. Presumably the only person who knows how to work it is the author – and he already knows what the bloody temperature is in Colorado!

one would go to the all the trouble of writing this program and then actually releasing it to the world at large.

Since this is version 1.2, it leaves you wondering what on earth could have been added from version 1 and 1.1. Personally I'm waiting with bated breath for *SpamPro*, which is rumoured to be a multimedia extravaganza, displaying a *QuickTime* video of a tin of spam.

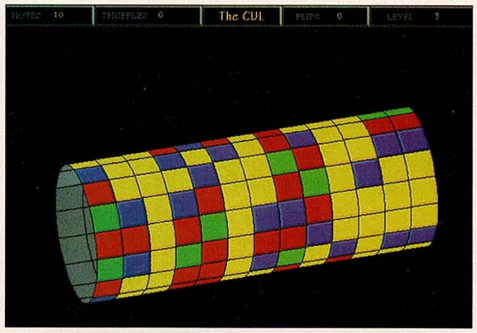
Molecular Designer

CHEMISTRY

Freeware

This is a pre-release version and doesn't contain many functions at the moment, but I include it here because it looks pretty impressive for shareware. The program comes with several example molecules for you to play around with.

You need a degree in science (or a degree in 'playing around randomly with a program you don't understand') to get the best out of this application, but it looks good. You can rotate a molecular design in all planes and zoom in and out. Ideal for chemistry lessons.



This is supposed to be a nice symmetrical pattern. I can't help feeling that I was closer to the solution when I started this puzzle. Oh well, practice makes perfect.

The Cul 1.0

PUZZLE GAME

Shareware $7

Remember the Rubik cube? I can't forget it. Night after night trying to solve the blasted thing. Eventually I could complete it in under two minutes (but that was with the aid of a claw hammer). I have yet to see a Mac conversion of the Rubik cube, but until one's released, you can flagellate yourself with *The Cul*.

You are presented with a tube consisting of a number of individual cylinders that move independently, like a fruit machine. There's no handle to pull though – you manually turn the cylinders by clicking on them until you make the required pattern. There are several patterns provided with the game or you can make your own. It's not the size of the puzzle, but the complexity of the picture which dictates the difficulty of the game – just like a jigsaw.

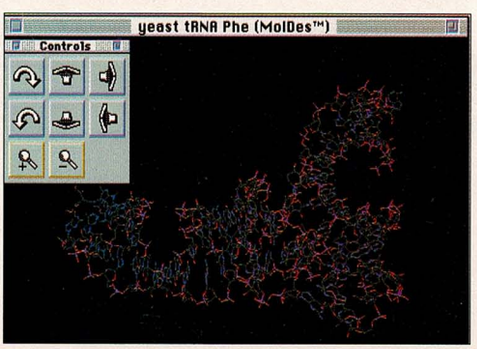
However, it isn't just a case of turning the cylinders until everything falls into place. The cylinders can be in the wrong order and upside down, all of which has to be sorted out to solve the puzzle. It's a fiendishly difficult game with just one major fault: I can't use my claw hammer tactic on it.

Pair Picker 1.0

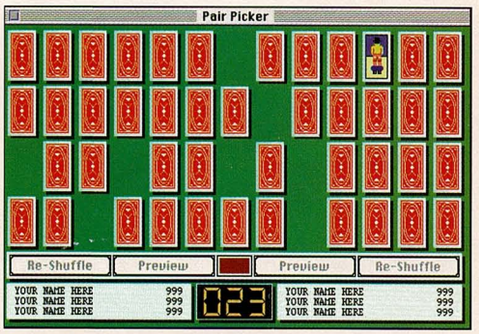
MEMORY GAME

Shareware $10

This is a Mac version of a classic card game. You start with 52 cards face down. The idea is to turn cards over, two at a time, looking for matching pairs. Once you have had a quick look at the two cards they are turned face down again, the idea being that you remember their positions to match them up with identical cards later.



After just five minutes I managed to construct my DNA pattern on screen, and I successfully altered it to enlarge one of my vital organs. (My brain, that is.)



Some of the pics used in *Pair Picker* are rather bizarre, but they add some humour – which is a good idea, especially when your brain's about to explode from memory overload.

This does make for a fairly educational game, which you can inflict on some poor unfortunate child who would rather shoot a few aliens. However, there's also an option to play a solitaire game, which is ideal for people who are terminally bored. Although it's a solid game with reasonable graphics, I don't think the author will be receiving enough dosh to book his cruise ship ticket just yet.

Mombasa 1.1

PUZZLE GAME

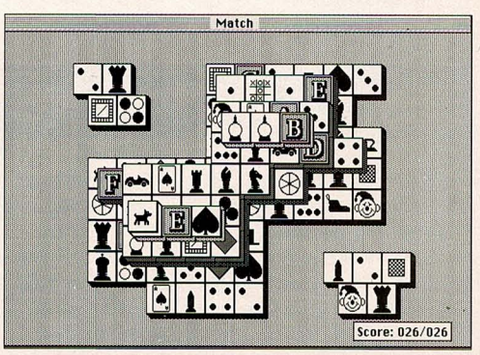
Shareware

I came across this game a long while ago and it's been a firm favourite ever since because of its graceful simplicity and addictiveness. The idea is that you have a stack of tiles, and your job is to click on two identical tiles to make them disappear. Keep matching the tiles until the last pair disappear.

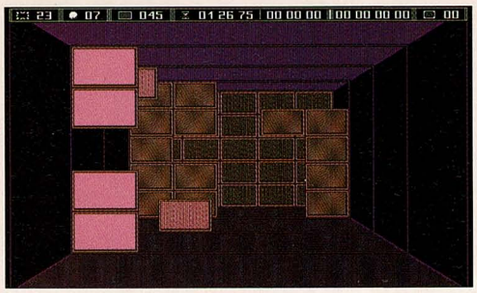
Easy? Well the one catch is that the tiles must be free to slide left or right. So, to get rid of a crucial tile, you often need to clear tiles that are blocking it in the first place. This often leads to you muttering phrases like 'if I can just move the dog, I'll be able to get the car out and clear the bishop'.

You can choose between several different styles of pictures to play with, including flags and African symbols. You can also alter the background picture, but I prefer a grey slab as I need to concentrate on the tiles until the small hours of the morning.

The good news is that this will run on any



Mombasa has some very nice tile designs. I've been toying with the idea of redecorating the bathroom and this program has given me loads of inspiration.



Smell that sweat as you smash an innocent ball around a three-dimensional court in *Shatterball*.

Mac with System 6 or better. The bad news is that because the tiles are built up randomly, many games are totally impossible to complete. But I still come back for more.

Eye on the Clock

TIME KEEPER

Shareware $5

Only 74 more days to Xmas! Really useful information, but not as useful as knowing how old your car is or how long it was since you last got drunk and threw up on the cat. With *Eye on the Clock* you can now keep track of the length of time until or since any event.

The program is well designed, with an attractive interface. It works well and does everything it's supposed to. Sadly the documentation fails to mention what the point of this program is – and no-one's going to use it as a diary because there are better shareware programs around that do that job. It's rather like someone designing a program to tell you the temperature in Colorado. I mean, what's the point?

Shatterball

BALL GAME

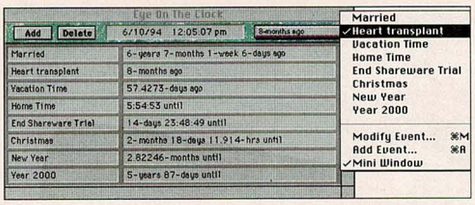
Shareware $5

Combine squash with *Breakout* and you have *Shatterball*: a fast ball game that needs quick reactions to play at full speed. It works well in black and white and on lowly Macs. I tested it on an LCII and it was plenty fast enough.

At the start of the game you're presented with a squash court with blocks at different distances along its length. The point of the game is to clear the court of all the blocks by bouncing the ball off them. You hurl the ball down the court, where it hits a block or the back of the court and rebounds, requiring you to position the mouse-controlled bat to whack it back down the court.

Some blocks disappear as soon as they're hit, whereas others take several strikes to get the message. The speed of the ball is totally your decision, varying from the speed of a snail with a broken leg *[erm, leg? – Ed]* to Concorde on steroids. But since your score is dictated by the time you spend trying to complete the level, your best bet is to throw it at the fastest speed you can cope with.

The game isn't actually very difficult to complete because bonus lives are given with abandon. The challenge lies instead with completing levels faster and faster each time. It's not the most addictive game I've ever come across, but acts as wonderful stress reliever, although you do tend to grip the mouse tight enough to make it squeak.



This wonderful utility can even count how many seconds I've been married for – not that I'm counting of course.

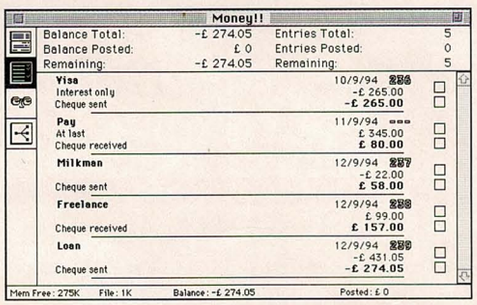
CheckBook 2.2

ACCOUNTS PACKAGE

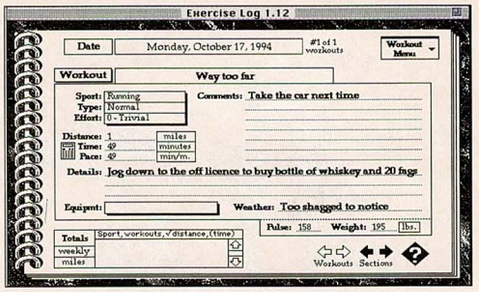
Shareware $15

CheckBook is a simple accounts program with no pretensions to be anything else. Although its name obviously implies that it is for balancing a cheque book, it's really a simple database for keeping track of money coming in and, more often, money going out.

This program is extremely simple to use, once you have spent a few minutes setting up all the categories of transactions that you need. The black and white interface is as dull as an accountant's tie, although it does mean that it will work on any Mac down to a Plus.



CheckBook is a fine program but since I normally forget to fill in the cheque stub, I doubt if I'll bother to open up this program every time I write a cheque.



Exercise Log enables you to keep a precise track of the day's exercises. So far today I've double-clicked my mouse…

Of course, one of your first entries would be for the $15 sent to the author. However, I shall not be rushing off a cheque because I can't see a real use for *CheckBook*. Most people would be just as well off creating their own program using a standard spreadsheet or database application, especially if they already have something as sophisticated as *FileMaker*.

Exercise Log 1.12

HEALTH RECORDER

Shareware $8

Exercise Log is a *HyperCard* stack that enables you to keep track of how much exercise you are doing on a regular basis. Ideally you would want to install this on a PowerBook to take to the gym as the ultimate posing aid when you walk into the weights room. Mind you, carrying a PowerBook around all day is enough weight training for most people.

You can enter pre-defined lists of sports to choose from, such as jogging, cycling, chasing women and pulling the ring pull on beer cans. To actually go to all the bother of using this program I suppose you'd have to be a Mac-owning, *HyperCard*-using, statistic-collecting, calorie-counting health freak.

Programs like this are all very well but with the introduction of increasingly sophisticated machines like the PowerMac, when is someone going to produce a program that does the exercise for you? Maybe a Virtual Reality application that simulates running around a bit and being healthy, with an add-on peripheral to recreate the odour of sweaty armpits.

As for me, my daily exercise will continue to consist mainly of getting up in the morning, peeling the foil off microwave meals, and loading the dishwasher full of my underwear because the washing machine is broken down and I really can't be bothered to phone the repair company.

YOUR ALMOST COMPLETE GUIDE TO SHAREWARE

Shareware is a form of 'try before you buy' software selling and it's a great idea so long as people are honest. When you get some shareware, the documentation will tell you how much it costs – typically it's somewhere between $5 and $40 – and where to send your money. If you like the software and decide to keep it, then you are morally obliged to cough up. Not only do you get the satisfaction of boasting to friends about how honest you are, but the author will often give you something in return, like a printed manual, or updates when released. The most common problem is sending money abroad, but as many shareware authors now accept credit cards, it's getting easier.

Freeware means that you don't have to pay for it at all. There are many derivations such as postcardware, which means that you have to send a pretty postcard to the author. However, freeware is not the same as Public Domain (PD) because although you don't pay for freeware, the author keeps copyright and you have to follow his terms and conditions to use the program. This often means keeping all the files together and not using or selling them for profit.

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MACFORMAT T-Shirt
Price: £9.95
Order code: MACFTSL (large)
(Sorry, no other sizes currently available)

600Mb of programs!

The BMUG PD ROM contains over 600Mb of the best shareware software from all over the world, collected by the Berkeley Macintosh Users Group and put on one CD-ROM (1994 edition).

BMUG PD ROM CD
Price: £39.95
Order code: MFBMUGCD

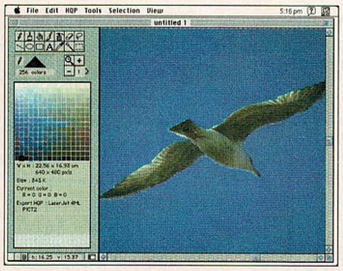
THE MACFORMAT STAR BUYS

These are four of the best programs that MACFORMAT has ever seen. We are proud to be able to offer these special products direct to you from our magazine. Fill in the order form and get your copy of these essential programs to make your Mac more fun.

ColorStation 2

(MACFORMAT 13: 90%)
Other software producers could certainly learn a thing or two about ease of use and value for money from Le Pixel. It's hard to fault *ColorStation*. With its straightforward controls, this is an excellent choice for novice 'DTPers', covering all the graphics and printing bases in a convenient one-stop program.

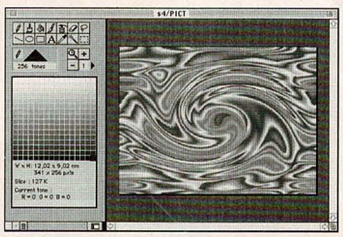
Price: £49.95
Order code: MFCOLS



GrayStation 2

GrayStation is a kind of mini-*Photoshop* for greyscale images. *GrayStation* enables you to take an original image and edit it, altering brightness and contrast. Using the program's own unique High Quality Print system, you can create superlative images that print out better than ordinary scans – even on cheap printers.

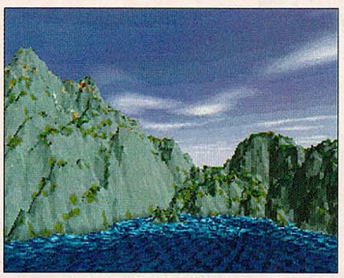
Price: £39.95
Order code: MFGRAY



Vistapro

(MACFORMAT 15: 90%)
With *Vistapro* you can create your own landscapes including trees, clouds, rivers, oceans, waves and buildings. Its sheer versatility is breath-taking and the results will stun you. *Vistapro* is a wonderful program that grabs you in much the same way as an addictive game.

Price: £89.95
Order code: MFVIST

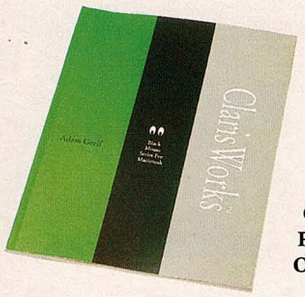


Redshift

(MACFORMAT 13: 95%)
Redshift is the best astronomy program there is, and it will provide hours of fascination for anyone with even the slightest interest in star gazing. It's a brilliantly conceived and excellently presented CD, with some genuinely innovative features. It's all that a budding astronomer needs.

Price: £59.95
Order code: MFREDS

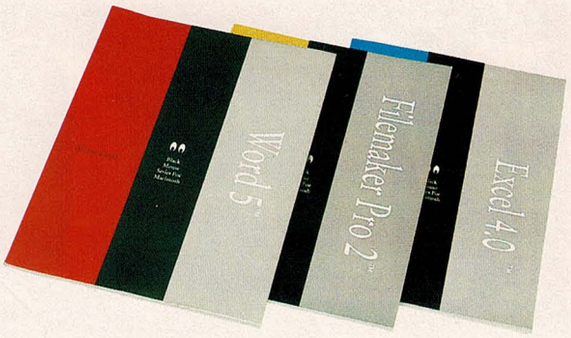
ORDER NOW! CALL THE HOTLINE ON 0225 822511



Need help with ClarisWorks?

If you need to know more than the manual tells you, then try this Black Mouse guide to *ClarisWorks*. Inside you'll find pages of practical advice and worked examples to help you get the most from your software. Special MACFORMAT offer – £2 off RRP.

ClarisWorks book
Price: £7.95
Order code: MFCWKB

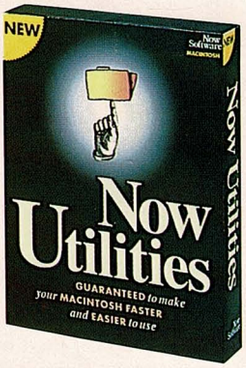


The essential shareware collection

No fewer than ten high density disks, packed with the very best shareware and freeware programs. No demos, just top-notch shareware software. Too many to list, but included are the latest versions of: *Disinfectant, SoundMaster, Apollo, BeHierarchic, FileTyper, Maelstrom, Graphic Converter*, and over 100 more. All programs work with System 7 and a colour monitor – some require them. Ten disks for just £19.95!

Shareware collection vols 1-10
Price: £19.95
Order code: MFSHARE1

Now Utilities version 5.0



Improve the way you use your Mac with this collection of nine superb utilities. With access to all recently used files and applications, as well as pop-up menus for your folders, you can quickly navigate around the Desktop. You can also save hard disk space with automatic file compression. See our review on page 120, try the demo on the CD, then buy it at this special introductory price.

Now Utilities v 5.0
Price: £60.99
Order code: MFNOW5

Excel, Word and FileMaker help

In the same series of Black Mouse guides are books teaching you the best of Microsoft *Excel 4*, Claris *FileMaker Pro* and Microsoft *Word 5*. All are available at the same bargain price.

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Price: £7.95
Order code: MFFMPB
Microsoft Word book
Price: £7.95
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Microsoft Excel book
Price: £7.95
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Myst

(MACFORMAT 9: 95%)

An adventure that has you exploring an island world with enthralling puzzles to solve and luscious visuals. This graphics extravaganza comes to you on CD-ROM.

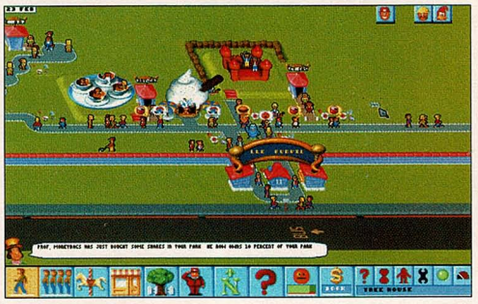
Myst
Price: £39.95
Order code: MFMYST

Exclusive HyperStudio offer

We were so impressed with *HyperStudio*, and its ability to enable any Mac user to create multimedia, that we got together with the UK distributors TAG Developments to offer MACFORMAT readers an exclusive deal on the software. We can offer you *HyperStudio* at the special price of £117 – that's almost £50 less than the recommended retail price. For just £117 you can be creating multimedia masterpieces in moments (sorry).

This offer is strictly time-limited, so apply now to get your copy at this special MACFORMAT price before it resumes its normal £165 price.

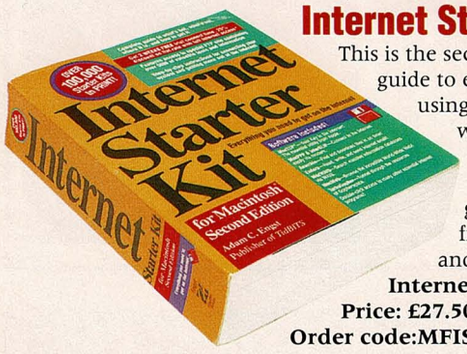
HyperStudio
Price: £117
Order code: MFHYPER



Theme Park

Your chance to build the theme park of your dreams. Construct the best stomach-churning rides, provide oodles of ice cream and hotdogs, please all the customers and make loads of money. See the review in MACFORMAT 18, and then take advantage of this stonking offer to get your very own copy.

Theme Park
Price: £29.99
Order code: MFTPARK

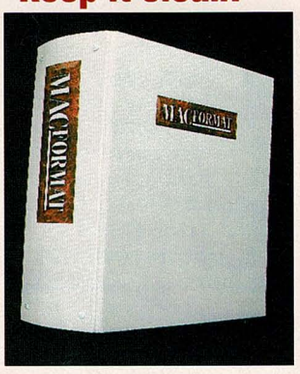


Internet Starter Kit

This is the second edition of this indispensable guide to everything you need to know about using the 'Net. The book comes complete with The Internet Starter Kit disk, which is packed full of useful software. Inside you'll find practical guidance on how to get the most from the 'Net without going bankrupt, and where to look for all the latest info.

Internet Starter Kit second edition
Price: £27.50
Order code:MFISKIT

Keep it clean!



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Centaur MT
Centaur MT Italic
Centaur MT Bold
Centaur MT Bold Italic
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Century Gothic Bold
Century Gothic Bold Italic
Colonna MT
Ehrhardt MT
Ehrhardt MT Italic
Ehrhardt MT Semi Bold
Ehrhardt MT Semi Bold Italic
Ellington MT
Ellington MT Italic
Ellington MT Bold
Ellington MT Bold Italic
Footlight MT Light
Footlight MT Light Italic
Footlight MT Bold
Footlight MT Bold Italic
Garamond MT
Garamond MT Italic
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The silliest software ever!

UnderWare is a screen-saver, and it can customise the desktop background, but it's much more than that. It's fun. In fact it's downright silly. *UnderWare* animates the screen as you work! Tarzan swings in and collides with the window, a thief makes off with your 68000, babies crawl everywhere, a dragon burns holes in the desktop and so on. It even runs *After Dark* modules in the same way. *UnderWare* has to be the ultimate Mac customiser! We gave it 93% in February's issue. Imported direct from the US, where it costs $59.95, MACFORMAT brings you total silliness for just £34.95.

UnderWare
Price: £34.95
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The ultimate value modem

We rate the US Robotics Mac & Fax as one of the best modems around, and now that USR has slashed its prices, we can bring it to you for an extraordinary £200. Only six months ago, it was £469!

The Mac & Fax is a super-fast modem that can transfer data at up to 56,000 bits per second – 20 times as fast as a typical 2400 modem. It does this by combining raw speed (14,400 baud) with the v32 compression system which shrinks the data before sending it. The modem works with any on-line service and comes complete with a Mac cable and all the software you need to access computers worldwide.

As well as being a modem, the Mac & Fax includes software that enables you to send faxes direct from your Mac, simply by printing from your document as normal, and the Mac & Fax can receive faxes too.

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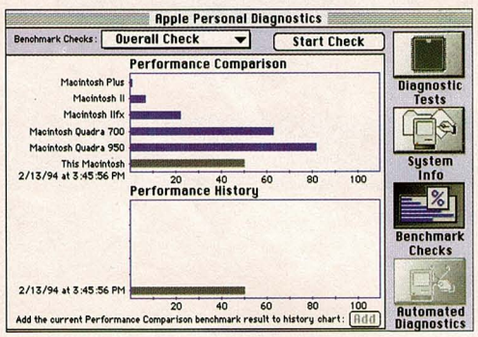
Apple Personal Diagnostics

Like to know how your Mac measures up? Apple itself has brought out a bundle of test routines to help you find out. To see how well *they* compare, read on.

Until recently, Apple had only a selected band of dealers who were eligible to sell its products, and this exclusivity also made these dealers the sole custodians of various bits of arcane problem-solving software. Now that you can buy a Mac from your corner supermarket, it makes sense for problem-solving software to be more widely available too. So Apple has released some problem-detecting and correcting routines in the *Apple Personal Diagnostics* bundle.

D for diagnostics

The Disk Tools floppy, which you probably got with your Mac, contains both *Disk First Aid*, which aims to repair disk errors, and *HDSetup*, which enables you to solve other problems such as updating the disk drivers. So what more does *APD* have to offer? Well, the D for 'Diagnostics' actually says it all: what you get is a series of tests that will give you an indication of how your Mac is performing.



Faster than the average Mac Plus... Unfortunately, it's a Quadra 700, so it's not performing as well as it should.

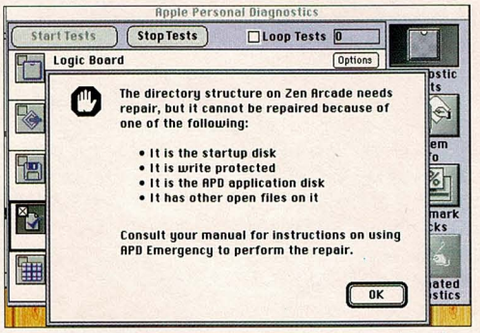
There are five disks in the package, but four of these are emergency startup disks for the various models of Mac available. The fifth disk is the interesting one – it contains the full diagnosis software, plus an automated diagnostic Extension, which can perform tests automatically after your machine has been idle for a time. Also included is a manual, which isn't bad – it enables you to cross-reference the problems that *APD* lists, with a description of the action to take. Mind you, this becomes rather predictable – check cables, disable Extensions, re-build Desktop, re-install System, and if all this fails, see your dealer!

The *APD* program can perform a variety of tests. There's a logic board test – checking the clock, ROM, PRAM, ADB and the co-processor if you have one. There's a test to check the video and the RAM. There's a hard drive routine that performs a read test (a random data seek), a bad block test and a write test. Finally, *APD* can check your System software. Though this set of routines may sound impressive, it is in fact quite minimal – but this is fair enough, as all it is designed to do is get you up and running when you have a problem.

No quick fixes

Also included is a 'Personal Diagnostics' suite, which is more comprehensive. It will run a test of your floppy drive, check out the sound and VRAM, and also check the performance of your monitor, by displaying a series of patterns. Of course you have to look at these yourself and decide if there's a problem. And apart from adjusting the controls on your monitor there's little you can do if a problem is encountered.

In fact, this is pretty much par for the course for the whole suite of tests. Really you're just getting a readout of information on your setup – the System info test, for instance, merely names the SCSI devices that you have attached and lists Control Panels, applications and so on. The benchmark checks seem more useful – these basically perform tests of integer and complex maths functions, hard disk, memory, and so on, and compare the performance with that of any Mac (the default machine happens to be a Mac Plus). But there are shareware packages such as *Speedometer* that do as much, and if the comparison of your processor to that of another 'identical' Macintosh is slower than it should be, what do you do? Ask for a refund?


Apple Personal Diagnostics
Start Tests
Stop Tests
Loop Tests
0
Logic Board
Options
The directory structure on Zen Arcade needs repair, but it cannot be repaired because of one of the following:
• It is the startup disk
• It is write protected
• It is the APD application disk
• It has other open files on it
Consult your manual for instructions on using APD Emergency to perform the repair.
OK

Loosely translated, this message from *APD* means, 'there's a problem all right, but your guess is as good as ours.'

More promising is the fact that logging your machine's performance over time is a simple task with *APD*, so you can see if things are deteriorating. But suppose your hard disk is getting slower. This is often a sign of data fragmentation. If you want to correct this, you'll have to either erase and re-format your hard disk or get a third-party disk utility program. The same is true if the tests suggest that there's a virus, or a disk driver problem: you can't just hit the 'Fix' button – there isn't one.

In one place the manual admits: 'Other disk repair and file recovery programs available commercially... may succeed running repair routines not included in *APD*.' That's the point. If *APD* came free with your Mac, that would be fine. Along with *HDSetup* and *Disk First Aid*, this would make a fairly useful suite of diagnostic programs. But as a commercial product, *APD* doesn't have the same versatility as other programs on the market.

Stuart McHugh

JARGON BUSTERS

ADB: Apple Desktop Bus. This is the system by which your mouse and keyboard connect to the Mac.

PRAM: Parameter RAM. This holds information such as time, mouse and keyboard settings, and some other stuff I've inexplicably forgotten.

VRAM. Video RAM. This is a special area of memory used to display images on the monitor.

APPLE PERSONAL DIAGNOSTICS

Price: £99
Requires: Mac Plus or better, 2Mb of RAM, System 6.07 or later.
For more details contact Apple on 081 569 1199, or your usual local dealer.

Features 65%
Plenty of options, but not all particularly useful.

Ease of use 93%
As you would expect of Apple, good use of the Mac interface.

Documentation 91%
Thorough but simple explanations of all functions and error messages.

Value for money 64%
Pricey for what you get, especially compared to the competition.

MACFORMAT RATING 68%

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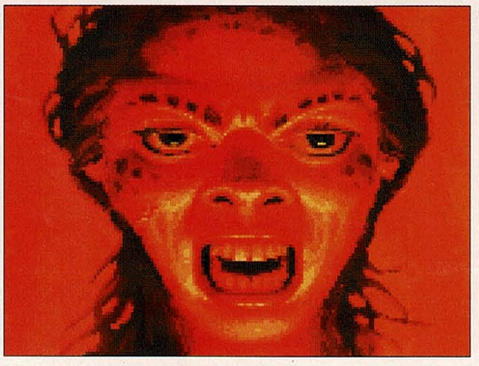
Gabriel Knight

Dive into a world of magic and murder in the city of voodoo and blues, in this epic adventure. Richard Hill slips into Gabriel's dreams...



Dark rituals and chanting are the catalyst for the mystical transformation that haunts Gabriel's dreams.

Blues from a slide guitar and Creole spices drift through the Louisiana air. Gabriel Knight paces the worn carpet of the book store, trying to understand the impenetrable: why are people being killed? What is the explanation for the voodoo artifacts left alongside each corpse? He decides that it's time to call on the beguiling Malia Gedde, who fascinates him more than he can believe. He collects his coffee-stained trenchcoat and heads for the door – very slowly – as the storm clouds break.

Set in the streets of New Orleans, *Gabriel Knight* is an adventure with a distinctive approach, although its potential's held back by weaknesses in its design. The promise is apparent immediately – the frustration comes later.

Knight's story begins with a sequence of images plucked from our hero's dreams. You sense that Gabriel's nightmares are linked with the voodoo-connected serial killings that afflict the city, so you decide to explore the streets for clues. Before long, you're drawn into a plot involving mysterious Germans and the voodoo culture, including the semi-mythical voodooienne Marie Laveau.

Most of the action's shown in a cinema-style wide-screen display, with the cast moving across painted backdrops that look nice but make objects hard to find. Any dialogue appears below this area – and is colour-coded by character – while a toolbar for controlling Gabriel's actions can be called up in the area above.

You move Gabriel around using a selection of icons that give you access to commands like 'walk', 'pick up' and 'operate'. The commands prove versatile in use, but a lack of consistency in the way the commands work undermines your ability to play the game smoothly. For example, you can read the newspaper on the desk by clicking on the 'pick up' icon, but you can use the 'look' icon to read a notice board. Overall, it's a flexible system, but more intuitive ones have been designed and should have been ripped-off shamelessly.

Once you've got the hang of moving Gabriel around, you can concentrate on playing the game. Story details and clues are given away by incidental dialogue, so you have to do a lot of sitting around and watching the action unravel.

Our hero is Gabriel Knight, a poor but hip bookshop owner. He encounters people who embody the extremes of good and evil in his magical and mystifying quest for the truth.

Throughout the story humour is used at every opportunity. For example, Gabriel changes from being a blur of pixels to an inquisitive peacock. Other characters take on lives of their own as you become drawn into the plot.

The problem is that the characters move so slo-o-owly. They take forever to move across the screen. Entire civilisations will rise and fall while you wait for Gabriel to take his coat off. This lack of haste is a mystery, because there are moments when our hero suddenly turns giddy with speed and makes a cup of coffee in three seconds flat. If the game's slothful pace is some sort of attempt at realism, it's rather misguided.

The other display you see a lot of is the interrogation screen, where two characters exchange dialogue. You select a topic from a list and the other persòn supplies an answer. The trick is to pick the right subject to ask the right person, so you can gather the clues that you need to progress.

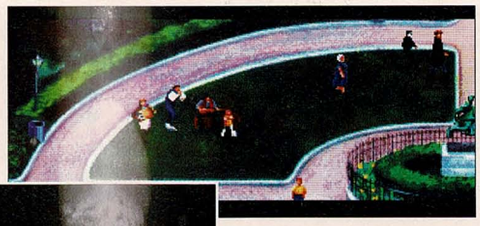
If you don't find all the clues and figure out the puzzles, you quickly reach an impasse. The story takes place over ten days, but you have to

Gabriel's dream could be interpreted as a warning not to interfere in others' affairs. Will he listen? Will he heck.

This sketchbook belonged to Gabriel's pop and contains images drawn from their shared nightmares. Spooky.

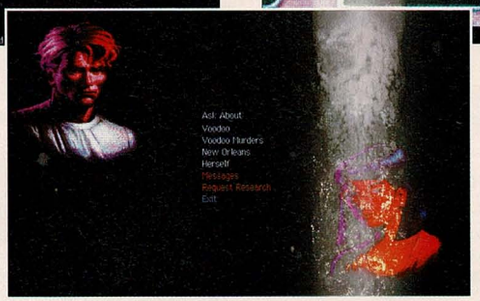
Two pairs of eyes meet and life will never be the same for either of them. Gabriel meets the enigmatic Malia Gedde.

The adventure is broken up into ten days, each starting with a quote that conceals clues for you to decipher.



The mime artist in Gabriel Knight is so bloody annoying you just want to kill him – just like in real life.

Perhaps the murders are connected with the blood-red markings on the tomb… or maybe not.



Gabriel can ask anyone – including his bookshop colleague Grace – questions from an ever-growing list of topics.

resolve all of one particular day's dilemmas to be able to go to sleep and move to the next day. Some of the obstacles can only be overcome through arbitrary trial and error, which means that you spend a lot of time over them but end up with the feeling that you haven't used your brain too much. Many sleepless nights lie ahead.

The saving graces of *Gabriel Knight*, which will make you forgive these flaws and others, are the story and characters. The New Orleans location is used to offer you a wealth of historical and cultural background on voodoo, and the characters that live in this version of the city add to the richness of the experience. There are elements of cliché in some of them, but you do get a sense of them living their lives outside of the game.

Before long, you're drawn into a plot involving mysterious Germans and the voodoo culture.

Characters are built up through the understated use of mannerisms and biographical detail. By doing this through animation and dialogue, *Gabriel Knight* uses a visual language that has become more familiar and immediate than the text narration used by books. As part of this direction, the game comes with a prologue in the form of a comic. Also, there are points – especially in the dream sequence – when the room backdrops fade to be replaced by a montage of images. These montages work successfully to show the cast in greater detail, as well as to impart a lot of information economically, and should've been used more often.

The adventure is accompanied by a constant soundtrack that is interesting to begin with – especially the occasional bursts of tom-tom drums and the smattering of sound effects – but soon becomes tedious over the course of a few hours. Relying on electronic plinkety-plink noises, the music doesn't have enough natural vibes to suit your adventures in New Orleans. It's probably better to turn off the sound and play a Neville Brothers album.

With a winning use of detail and humour, *Gabriel Knight's* big success is in giving its world life. Many adventures, such as *Myst*, have exotic settings illustrated with lush graphics that remain too complex to animate convincingly in 3D (and barely any people). *Gabriel Knight* takes advantage of its simpler look to make its version of New Orleans overflow with people for you to meet, each with their own secrets to discover. It beats working out which lever to pull so you can enter another empty room – if only the action wasn't so slow!

Richard Hill

All these pictures are from the early stages of the game so we don't give away any vital plot points. Or maybe I just couldn't get any further – you'll never know.

GABRIEL KNIGHT

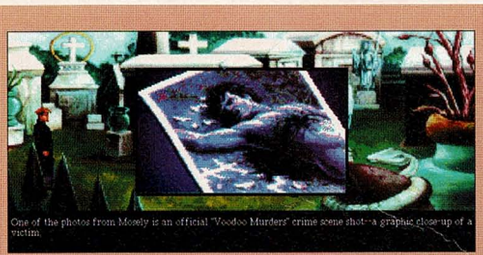
Price: £39.99. Out: now.
Requires: any Mac with at least 5Mb of RAM, System 7, a monitor capable of showing 256 colours and 20Mb of hard disk space.
For more details contact Sierra on 0734 303322.

Graphics 75%
Shown in an often indistinct but atmospheric painterly style.

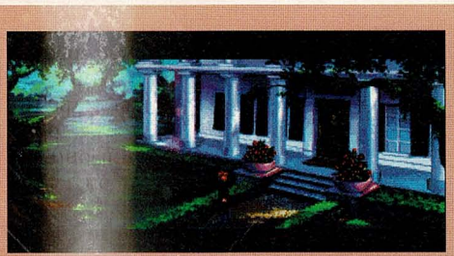
Sound 69%
A definite 'turn-it-down-and-play-a-record' job, sadly.

Gameplay 81%
Tortoise-like speed lets down a rich, involving game.

MACFORMAT RATING 80%



Gabriel obtains evidence of how bloodily one unfortunate victim met his end – not for the squeamish!



The Gedde estate is a relic of the Deep South's colonial past – and part of the rich background of the game.

Gabriel visits his dear old grandma – but what dark secrets lurk in the attic? No, don't go in the Attic, Gabriel!

THAT OLD BLACK MAGIC...

Today's horoscope warns him of trouble brewing – and in New Orleans you don't ignore warnings like that. Gabriel? I said you don't ignore warnings…

The Dixieland Drug Store holds many weird and wonderful potions and remedies for the adventurous – and just as many dangers for the reckless.

Goblins 3

It's French. It's weird. If any game could make you laugh, swear and shout 'Zut alors!', it's this.

Your man Blount gives another cheesy grin and gets ready to have a go at, well, absolutely anything you want him to.

You may have been to France and seen nothing amiss. At least, nothing you could put your finger on. Everything seemed quite normal. And yet, at the same time, something didn't feel quite right. It wasn't the fact that all the cars were on the wrong side of the road. Or the signs were all spelt wrong. No, it was something more subtle. Something about the people...

Yes, the French are a bit weird. And this never comes across so strongly as in their computer games. From bizarre adventures full of naked ladies, to driving games adorned with purple scenery, they've turned out some truly odd titles. Good ones, mind you, but nevertheless rather strange. *Goblins 3* is the latest. It could best be described as a cartoon-style point 'n' click adventure, where you solve puzzles to get from one screen to the next. But it's a lot cleverer than that. And a lot more weird.

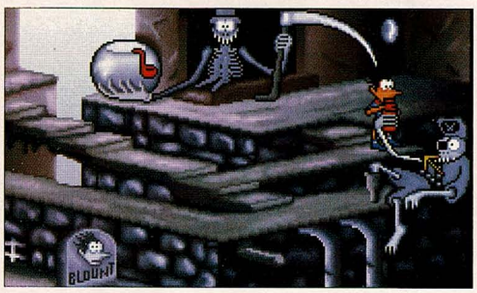
As in most games you've got a character to control. He's called Blount. He's a journalist and he's on his way to interview Queen Xina and King Bodd, the rulers of two rival kingdoms. You've also got to rescue Wynnona, the daughter of the recently-deceased guardian of the labyrinth – don't ask! Blount walks from place to place, picks things up, and uses things on other things.

But that's not all. Blount is also a fully-formed cartoon character who'll capture your heart within seconds. When you do something right he'll give you a reassuring thumbs up. When he gets his hands on an essential object he'll somersault with joy. When you tell him to do something silly he'll shrug, wanting to help but not quite knowing how.

Right at the beginning, when he reaches for a much-needed parachute and it's whisked from his grasp, Blount pulls out a gun, puts it to his head, looks at you mournfully and pulls the trigger. When the smoke clears, his head's gone. But it's okay. A few seconds later it pops out of his shirt and he laughs gleefully. He's genuinely amusing rather than just 'funny' in the usual computer game sort of way.

No comedy character would be complete without a sidekick. Blount accordingly picks up a variety of helpers along the way. The first is Chump the parrot, who seems to bounce around on his head most of the time, and there are others later on, both human and animal. There are loads of baddies and things as well, many of which you'll need to get out of the way if you want to progress further into the game. So it's just as well that most of them are even more gormless than Blount, and are easily distracted by, say, the old false-hand-extended-in-friendly-welcome gag.

But where the game gets really off-beat is in the puzzles themselves. They range from the obscure to the virtually impenetrable, and generally involve you clicking on everything on the screen and trying every object in every possible combination until you get a result. For example, who would guess that to trap the blue Will o' the Wisp (which you need for a recipe), you first need to dress a skull in the comedy false glasses and nose that you've just removed from a clown, and then flip up a lid on top of



Somewhere in the future there's a headstone with your name on it. Things get sticky for Blount. Hmm, now get out of that.

This trap is far too obvious for *Goblins 3*. It's more likely to catapult Blount into the castle than snap down on top of him.

AND THERE'S MORE...

You've probably been wondering about the '3' in '*Goblins 3*', and why you haven't come across *Goblins 1* and *2*. And the reason is that although the series has been running for a while on the PC and Amiga, it's only just made it to the Mac. As well as releasing the latest Goblins game, Coktel Vision has also taken the opportunity to convert the two old ones. Should your financial resources, not to mention your sanity, prove adequate, the scene is therefore set for a whole Goblinathon.

Gobliiins

The three 'i's are probably because the first Goblins game, *Gobliiins*, had three Goblins in it, and you had to pick the right one for each task. (Or possibly it was just another example of Frenchness.) This sounds neat, but actually proves to be a bit fiddly, and you can see why the idea was dropped later on.

Apart from that, and the game being rather smaller, *Gobliiins* is every bit as entertaining as the others in the series. Oh, except for some reason you've got an energy bar that goes down every time you make a mistake. This is sheer lunacy in a game that relies almost entirely on trial and error. The energy bar alone costs *Gobliiins* quite a few percentage points.

Gobliiins gives you three goblins to control, but single-screen playing areas.

Gobliiins' problem is that you have to pick the right goblin for each task. It's a real pain. The idea was dropped for *2* and *3*.

Price: £39.99. Out: now.
Requires: LCIII or better, System 7.1 or later, 256-colour monitor.

MACFORMAT RATING 68%

SEE WHAT WE MEAN?

The first level has you trying to escape from a sinking ship. Jump overboard, maybe? Nothing so simple...

1 The trouble is, the deck is too high to jump from. Ah ha – but there's a parachute. Bingo, you think?

2 Nope. As you reach for it, a plummeting rock knocks it away. Depressed already? There's hope...

3 ... In the shape of that parrot. Untying a knot a brings him closer. But he's still out of reach.

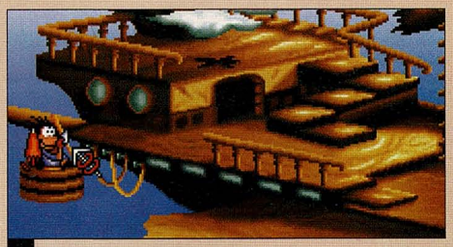
4 But if you hit him with the golf club (obviously), he's free. Oh no, now he's heading for that hole!

5 If you rummage around in that box you'll find a plunger. Ah, that should do the trick.

6 Then you can use the coin to undo the screw to release the hook. Cunning or crazy? You decide.

7 The hook, with the parrot's help, can be turned into a winch to haul an umbrella up from below deck.

8 If you stand on the hand, the parrot will catapult you to the top of the masthead to retrieve a tooth.



9 Finally, with the umbrella as an *ad hoc* parachute, you cut the rope with the tooth. And you're free!

the skull to ensnare the Will o' the Wisp? And, equally baffling, in a brilliant sort of way, is the level where you bathe the scenery in different coloured lights to reveal different characters.

It doesn't matter too much, though. First, the consequences of any action are never fatal, so you can try anything you like to see what happens. And second, whereas in the old days you'd have been repeatedly told, 'You can't do that,' Blount will give anything a go. To make it more interesting he has an amusing animation up his sleeve for most occasions. If you get truly fed up there's always the 'clue' facility. This is just plain silly though, because you are presented with the whole solution to a level as a screenful of text – steer well clear of that.

Goblins 3 is frequently hair-tearingly frustrating and you may well find yourself stuck on one screen for days at a time. But it always makes a very special sort of 'French' sense in the end, and it is continuously enjoyable. If you get to the end, and still want more, well, Coktel Vision has released two more *Goblins* games as well (see the 'And there's more' box on the left). Vive la difference, eh? *Jonathan Davies*

Gobliins 2

Just two 'i's this time, and two *Gobliins*: Fingle, the serious one, and Winkle, who's a bit silly. The energy bar has thankfully disappeared, so you can experiment at your leisure and enjoy the amusing animations that result when things go wrong. Rather than *Gobliiins*' single-screen playing areas though, and *Goblins 3's* scrolling ones, each level has several screens that you have to move between, which seems a bit tedious.

With just two goblins, *Gobliins* (2) is better than *Gobliiins* (1) and just as silly. To make this hen lay an egg you have to hit it with a sausage. It's probably made with garlic.

You've usually got several puzzles on the go at the same time, too, some of which are ridiculously obscure. For example, to make a chicken lay an egg, you have to hit it not with the bottle, or the stone, but with the sausage. Eh?

Price: £39.99. Out: now.
Requires: LCIII or better. System 7.1 or later, 256-colour monitor.

MACFORMAT RATING 78%

GOBLINS 3

Price: £39.99. Out: now.
Requires: LCIII or better, System 7.1 or later, 256-colour monitor.
For more details contact Sierra on 0734 303322.

Graphics 88%
Superb, hilarious cartoon-style animation.

Sound 90%
Tonnes of utterly appropriate spot effects.

Gameplay 83%
Sometimes irritating and frustrating, but truly entertaining for the rest of the time.

MACFORMAT RATING 86%

Gadget

Are we going to be treated to a bit of a laser show here? Or is someone about to perform major heart surgery?

The multi-talented Inspector Gadget? Erm, no – this CD-ROM is a different kettle of Koi entirely.

Caligula, as Morrissey so mournfully sang in 'Heaven Knows I'm Miserable Now', would have blushed. Not because Dr Horselover, the scientist star of *Gadget*, is named after one of the emperor's favourite pursuits, but because this game is more embarrassing than being caught in a compromising position with your favourite mare.

If a marketing hypester were asked to describe *Gadget*, the words 'movie' and 'interactive' would feature very closely to one another (though probably not in that order). He or she would probably waffle on about the cinematic multimedia experience, the conversations with in-game characters, the detailed rendered graphics and the avant garde musical score. If a normal person were asked to describe it, they would call it a glorified slide-show with sound effects. Put in the politest terms possible, *Gadget* is simply not very good.

It's trying desperately hard to be a surreal graphic adventure along the lines of *The 7th Guest* or *Myst*, but it's badly lacking in both atmosphere and gameplay. You start in a hotel room with the knowledge that you have to track down a scientist (the aforementioned equine admirer) who's trying to persuade the world that a comet's going to smash into Earth and send us all on a one-way trip to oblivion.

The control system is simple – ridiculously simple: move the cursor over the screen and if it changes to an arrow, you can click and move in that direction. If it doesn't, you can still click in the hope you'll be presented with a close-up view of whatever you clicked on (or start a conversation if the thing you clicked on happens to be a person). There's no *Guest*-style smooth sweeping along pre-rendered paths, it's just click and move. While this makes for much faster progress, you're always waiting for the game to throw something impressive at you, and you're continually disappointed. It does throw in its tuppence-worth of pre-rendered *QuickTime* movies, but these moody monochrome sequences are singularly deplorable.

Even though the static screen approach is faster than chugging along pre-set paths, the movement in *Gadget* is often confusing. You can often see a location that you want to get to, or a person you want to talk to, but you have to click your way around a convoluted route to get there. And when you do finally reach the person, you can't ask any questions. Instead, you just click the button a few times to look at what he or she has got to say – and that is about as interactive as *Gadget* gets.

This game is more embarrassing than being caught in a compromising position with your favourite mare.

In fact, throughout the game, the gameplay follows this simple click, click, click procedure. When you get out of your hotel room, you get in the lift with a small boy who just happens to have the same kind of case as you. One click gets you into the lift, the next makes you look at the boy, another click makes you look at the cases, a fourth turns you round to look at the lift's button. Click five sends the lift down, click six opens the lift door, and click seven makes your character look in his briefcase to find that it's been switched with the boy's. All that clicking and you haven't had to think once about what you were doing. No problem solving, no

THE CASE IN HAND

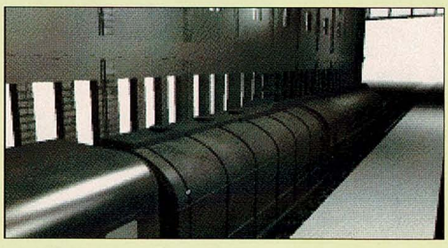
You start the game with a shiny attaché case, neatly packed with all your essential holiday items...

... But after some strange case-switching antics involving a small boy in a lift...

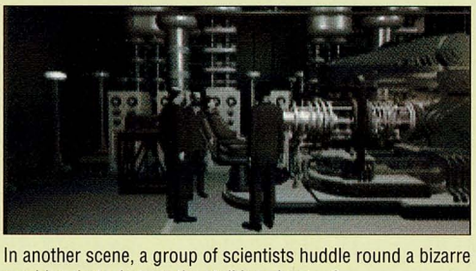
... you end up with a special-agent case that soon gets filled with all sorts of scientific gadgets.

IT DOESN'T MATTER IF YOU'RE BLACK OR WHITE

Here's one of *Gadget's* exciting cut scenes in all its monochrome glory.



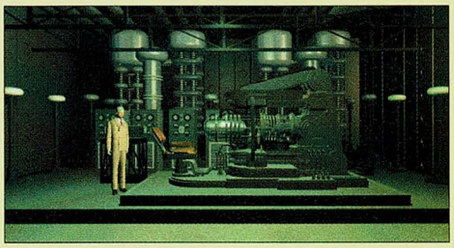
The train leaves Central Station, and leaves you wondering when the action's going to start.



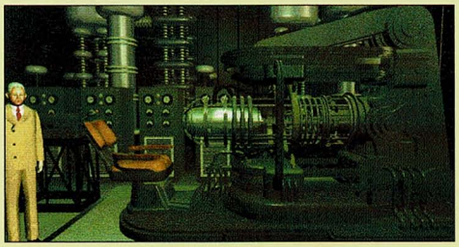
In another scene, a group of scientists huddle round a bizarre machine, but what are they talking about...?

... Some unfortunate soul is strapped to it. What's going on? This is in danger of getting interesting...

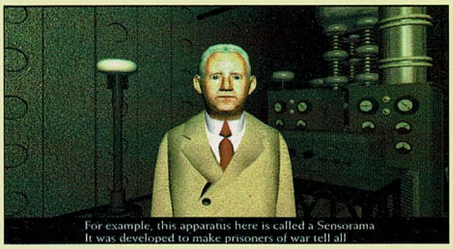
MANIACAL MACHINES



At the Science Museum you meet another of Horselover's boffin cohorts; you saw this machine on a film reel earlier.



When you move closer you realise that this machine is a rather frightening piece of equipment.



Oh no, this bloke's imploring you to get on board. Oh well, what have you got to lose?

Climb aboard and you see a display of coloured lights. Just as you're about to enter a trance, the damn thing breaks!

Don't forget to talk to everyone on the train if you ever want to get off. But hang on, where's the train? Not another strike?

grappling with mind-bending puzzles, just click, click and click again.

A couple of dozen thought-free clicks later and you're rattling along on a train. You want to get off at the next stop, but the train doesn't stop until you've talked to all the people in your carriage. As soon as you've done that, it magically arrives at your destination. There's nothing for you to work out while you're on the train, it is just a matter of making sure you've clicked on everyone. And when you get off the train, it won't leave the station until you've talked to whoever happens to be lounging around on the platform.

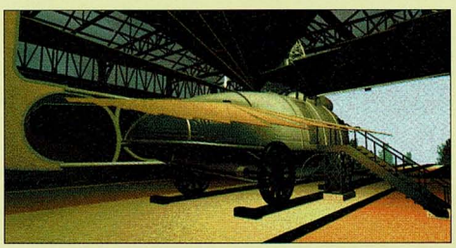
Occasionally, you'll find a bigger location that needs more exploration, but essentially all you're doing is trying to find the triggers that will enable you to leave that scene. It could be as simple as talking to a person; it could be as complicated (for *Gadget* at least) as pulling a couple of levers. Either way, there's a total lack of involvement – those who thought *The 7th Guest* was lacking in the interaction department will have an absolute field day with this turkey.

All the 'conversations' you have with people along the way are supposed to generate an air of excitement and intrigue about the true nature of Dr Horselover's scientific investigations, but it's all so lame and uninteresting you really don't care what happens. The high level of tedium means you could quite easily stroll your way through to the end of the game with barely an inkling of the plot, and it's all over within three hours of solid play anyway. There's no sense of atmosphere. And while there are one or two peculiar cut scenes that promise some weirdness, any spark of excitement is thoroughly drenched by the sheer banality of the gameplay. *Richard Longhurst*

COLOURED VIEW

Wow! you can see all the black and white scenes in colour too, but don't get too excited...

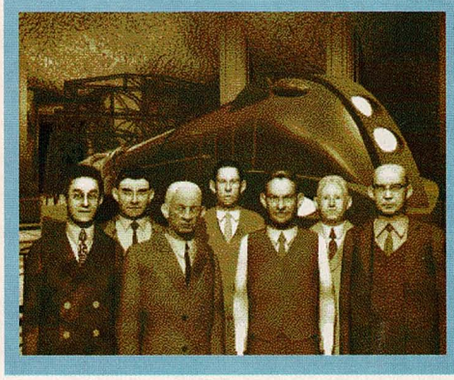
Sometimes you get to see what the black-and-white scenes look like in 256 colours...



But when you do, you're never particularly impressed. The rendering's fine, but there's not a great amount of detail.

CHECKING IN

The foyer of the hotel is where your contact gives you the details of your assignment. There's no choice about what happens here – you just click the mouse button to go through the motions of moving, sitting down, talking and looking. Awfully dull.

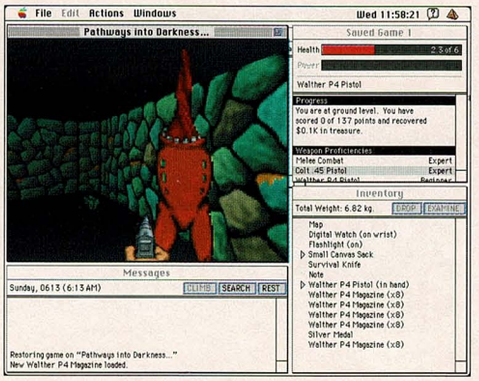


GADGET

Price: $59.99. Out: now.
Requires: LC or better, System 7 or later, 8Mb of RAM, 256 colours at 640 x 480 resolution, double-speed CD-ROM drive and *QuickTime 1.6.1*.
For more details contact Books Nippan in the US on 0101 213 891 9636.

Graphics Decent rendering, but dull cut scenes.	70%
Sound Little speech, few effects.	50%
Gameplay Click, click, click, click.	15%
MACFORMAT RATING	33%

Gamebusters



A MACFORMAT reader has found some craftily hidden secret passages in *Pathways Into Darkness* that you can use to avoid deadly creatures like this one.

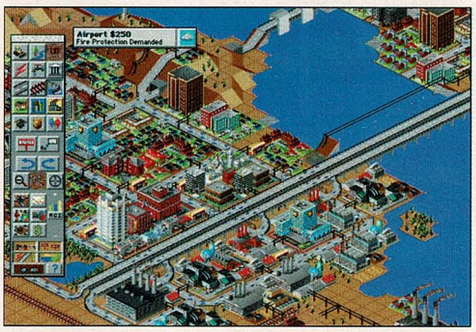
In the most dramatic comeback since Jayne and Chris put their skates back on, Gamebusters, the agony column for Mac gameplayers everywhere, has returned with all those helpful hints and tips.

We're back. How long's it been, eh? You're looking well – a bit peeky round the eyes, maybe, but that's only to be expected when you spend every waking hour obsessively trying to get that last Lemming home. Gamebusters is the page of community spirit, where those who obviously don't think sleep is important help those whose bodies are not up to the sleep-deprivation needed to complete a modern game. Cheating in the most underhand way possible is what we're all about.

SimCity 2000

We'll start with the tip that's been sent in by the most people over the past few months – a short cut to success on the latest version of this classic simulation. George Campbell Kelly from Coventry was the first to send it in.

If you're having difficulty building your metropolis and could do with some more money, type 'porntipsguzzardo'. This will give you tonnes of cash to spend, and enable you to build any sort of building, no matter what size your city is. George adds that with some versions of the game you need to type in 'porn [space] tips [space] guzz [space] ardo'.



SimCity 2000 is one of the most popular games that's available on the Mac, so the most popular cheat was probably a foregone conclusion.

F/A-18 Hornet

Neil Simpson from Hawick in Scotland has discovered this little hidden gem for anyone who continually gets shot down in flames while playing this popular flight sim.

If you hold down the [option] key while selecting 'Tour of duty' in the Mission menu, you'll be presented with a dialogue box that enables you to fly any plane on a mission containing that plane. For example, if you enter the mission number as '19' and the plane as 'F117', you'll get to fly the 'Stealth' and be invisible to enemy radar.

Neil adds that this cheat only works on newer versions of the game. If you have an older version, an updating program is available from bulletin boards.

Pathways into darkness

R Kennard from Southampton writes in with details of the secret passages that are concealed in some of the levels of this game.

On the 'Evil undead phantasms die' level find the ladder that takes you to the 'Ascension' level. To the south of this is a west-facing wall and here there's an entrance to the 'Lock and load' level.

On the 'They may be slow' level go straight through the room that you first enter and head to your left. There's a room concealed by two pillars, and inside you'll find a passage to the 'But they're hungry' level. But wait, just past the first bend of this passage is an alternative route that takes you to the 'Evil undead phantasms die' level.

On the 'Happy happy carnage carnage' stage head for the south west corner of the level. In this room, you'll find a passage in the south wall that leads to a room containing three rooms and an Easter egg. The middle transporter leads to the 'A plague of demons' level, but R refuses to say what happens when you eat the egg – which probably isn't very nice of him. Eat some – go on.

If this doesn't help, maybe you should give up and try to think up cooler level names than 'Happy happy carnage carnage' and 'I'd rather be surfing'.

Lemmings

Here are the level codes for the 'Mayhem' section of... no! I won't do it!

Please, don't send in any more rodent codes until we have some new *Lemmings* games. Please, or the little fellas won't be the only ones throwing themselves off cliffs. I can only take so much before I crack!

Richard Hill

SOMEBODY HELP DEREK – PLEASE!

Games like *Rebel Assault* and *Wolfenstein 3D* are spearheading a new wave of Macintosh games – as you'll know if you read our 'Coming attractions' feature on page 26. And can we complete any of these funky new games? We cannot.

MACFORMAT needs tips, cheats and even complete guides before we all go absolutely mad. Derek, for example, is playing *Sensory Overload* to death, and if somebody doesn't help him get through it – and soon – there just might not be a cover disk next month. We're desperate!

So desperate, in fact, that we're giving away a crisp five pound note to the sender of each tip we publish. We're working on an extra special award for anyone who has a complete solution published – but hey, don't wait around for us, send it in now. It'll be good...

Send your messages of mercy to: Gamebusters, MACFORMAT, 30 Monmouth Street, Bath BA1 2BW.

Derek keeps getting mugged by these horrible ninjas – as you do – and he needs your *Sensory Overload* tips before he goes completely crazy.

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Now Utilities 5.0

Is efficiency out of reach if you've got an untidy mind and an untidy Mac? Not with these nine nifty utilities.

Now Utilities is a suite of nine utilities, most of which are Control Panels. They're designed to help you perform a variety of tasks more efficiently. Although they all share a common look and feel, they are in fact separate programs. This means you can install just the ones you want – this is useful because very few people will actually need or want all nine.

There's very little that's new here. Most of the utilities included have shareware or commercial equivalents – although if you were to buy them separately they'd cost you far more than the *Now Utilities* collection. So if two or more of the utilities within this package sound useful to you, then I can heartily recommend the entire suite. Check out the demo on the MACFORMAT CD. It's the full product, time limited to seven days.

MACFORMAT Classic

Now FolderMenus

FolderMenus enables you to navigate your way around your hard disk without cluttering up your screen with windows. In use, you click and hold down the mouse button on the icon of a folder or disk. A pop-up menu appears showing you the contents of that file or document. If you move the cursor down the menu to any folder, a further sub-menu appears showing the selected folder's contents. Move the cursor down that menu to see more folders within folders within... Well, you get the idea.

In practice, this means that to open, say, a word processing document you have to click and hold down the mouse button on your hard disk icon, then move the pointer down your hard disk's menu and click on your word processor's folder icon. Another menu appears. Move the pointer down this and select the document that you want, then let go of the mouse button and the document will open just as if you'd double-clicked it.

To move or copy a file, you can drag its icon on to a folder and then navigate your way as before, letting go when the file is on top of the destination folder. The whole program works slickly and is the sort of thing that I would keep permanently on my Mac. It's very similar to *PopupFolder*, which was reviewed in MACFORMAT 15 and costs £45.

Now Menus

The largest part of *Now Utilities*, *Now Menus* has a bewildering range of options and they can take a while to fathom. It adds several new menus to the menu bar, which are then available all the time, regardless of any applications you're running – it's a bit like the Apple menu in that sense. You can customise these menus to contain whatever items you want.

Essentially, this is no real improvement over the Apple menu, just somewhat neater and more powerful. There's also a separate pull-down menu to access recently used applications and folders – this is something you will also see in System 7.5.

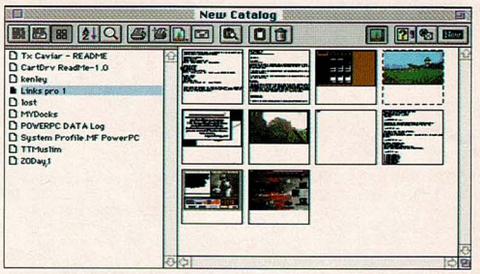
Its most useful feature, though, is the way it enables you to access files held in folders under the Apple menu in a single action. Of course, the shareware program *BeHierarchic* already does this, but *Now Menus* also enables you to access directly the features of the Chooser and certain Control Panels. For instance, to change printers, pull down the Apple menu to the Chooser, and a sub-menu pops up. From this sub-menu you can select a printer or a shared volume on a network.

Now QuickFiler

A utility with an identity crisis, *QuickFiler* offers a disparate array of options. There is a find facility that's marginally better than Apple's built-in one, plus an option to move files around your hard disk.

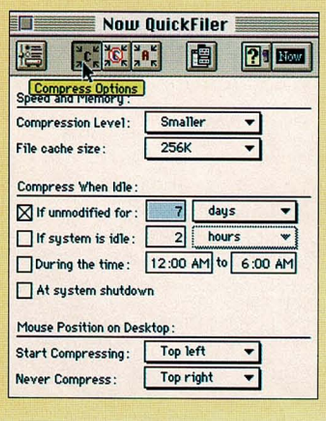
But hidden away without much hype is a truly great compression feature. You can compress files to save disk space and create self extracting archives – just like the ones on our cover floppy disks.

There's also on-the-fly compression that automatically compresses and decompresses files in the background – you don't even know it's happening. This gives you more storage space on your hard disk, although there is a trade-off

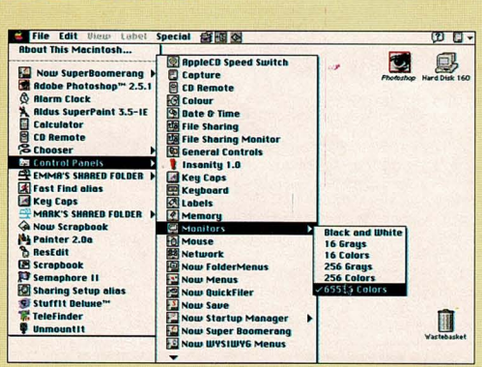


You can now see many items in your Scrapbook at once with *Now Scrapbook's* really useful thumbnail option.

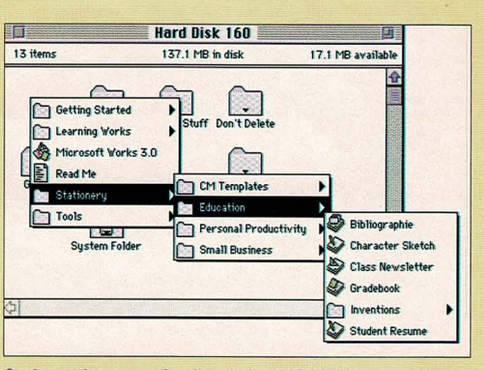
EFFICIENCY MADE EASY



QuickFiler has the ability to compress files on-the-fly and archive them on to floppy disks.



Using *Menus* it's now even easier to change the number of colours you can display, the sound level or the startup disk.



Can't see the screen for the window? *FolderMenus* enables you to get around your hard disk without endless clutter.

WIN NOW!

We have five copies of *Now Utilities* to give away courtesy of Now Software. All you have to do is answer this question: which utility in *Now Utilities* can compact your files to save disk space?

Send your answers on a postcard to: 'Now Competition', MACFORMAT, 30 Monmouth Street, Bath BA1 2BW. Employees of Now Software, Future Publishing, and their families are not eligible to enter. No multiple entries are allowed. Please state if you don't want your name added to a mailing list. The editor's decision is final, and the closing date is Friday 9 December 1994.

with a slight drop in speed performance. It's not quite as sophisticated as *DiskDoubler Pro*, but *QuickFiler* offers all that program's main features at a fraction of the price.

Now Save

In years gone by I used to use my software without any protection at all in the hope that everything would be all right. It was my Mac's responsibility to see that it didn't crash. In the virally aware '90s, *Now Save* is the Mac equivalent of a condom. (And with all its exciting options and features, it must be the super lubricated ribbed variety...)

What it does is automatically save your work at set intervals, say every five minutes. You can choose whether to be warned about saving or whether it just goes ahead and does it quietly in the background.

There are occasions when you don't want to save, such as when you are fiddling around with *ResEdit*. To cope with this, you can make any application exempt from its effects. You can also tell *Now Save* not to affect files with certain letters in their name, for instance, the word 'stationery'.

Now Scrapbook

I must admit, I rarely use the Mac's Scrapbook – probably because of the hassle involved in finding particular items among dozens of pictures, sounds and pages of text.

Now Scrapbook improves this situation. The screen is split, with the pasted data on the right-hand side, and the names of items on the left. This means you can quickly see the names of your items. And even if you have hundreds of items in your Scrapbook, there's a find function to zap you to it. If you use the Scrapbook a lot, then this utility will be a real help.

Now Startup Manager

Startup Manager manages your, erm... startup. In particular, you can select which Control Panels and Extensions you want to load at startup. You can create different setups and save these for later use.

This is handy if you know that the odd Extension clashes with a certain application, or if you want to create a setup that uses a minimum number of Extensions to save memory. I found it useful to turn off all of the Extensions except the ones that drive my CD-ROM – this increased the Mac's speed no end.

Startup Manager has another trick up its digital sleeve. It monitors the start up process and lets you know if there's a conflict and what the solution is. This utility gives you most of the features of *Conflict Catcher*, which costs as much as the whole of this package.

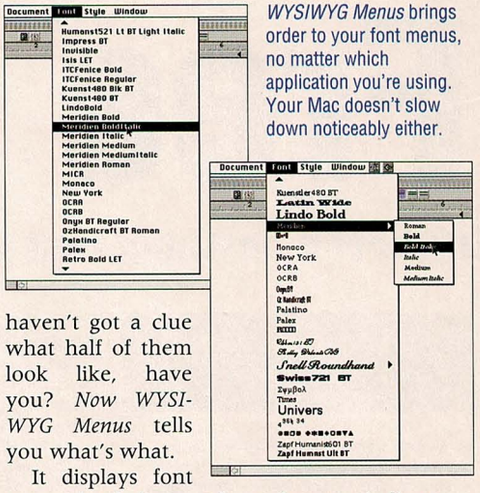
Now Super Boomerang

This has long been a popular Mac utility, but it's beginning to look a little redundant. This program alters the Open command in the File menu to give you direct access to recently used files and folders. Sound familiar? Well it should, because most of this program's features can also be found in *Now Menus* (not to mention System 7.5).

I assume it's been included for those people who don't want all of the features of *Now Menus*, but would like access to recent items. It does a few extra things, but for most people the choice between the two utilities would be an either/or decision.

Now WYSIWYG Menus

What you see is what you get, except in the case of font menus. With those you get a huge long list of font names – but let's face it, you haven't got a clue what half of them look like, have you? *Now WYSIWYG Menus* tells you what's what.



WYSIWYG Menus brings order to your font menus, no matter which application you're using. Your Mac doesn't slow down noticeably either.

It displays font names in their own font, thus reminding you what they look like. Many fonts consist not only of the basic typeface, but italic, bold and extended variations, making your font menu 12 feet long. This utility gives each font a single mention in the menu, with a sub-menu for the different varieties.

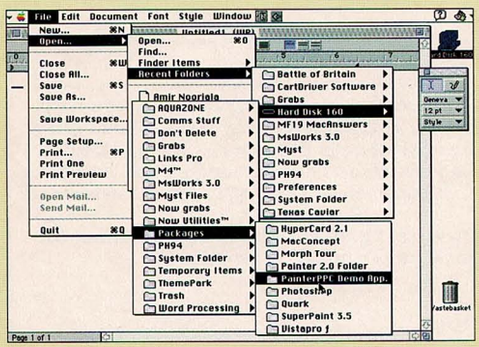
The only drawback is that it makes some font names difficult to read, or even impossible in the case of graphic fonts such as Zapf Dingbats, where all you get is a load of weird symbolic gibberish.

Derek Smith

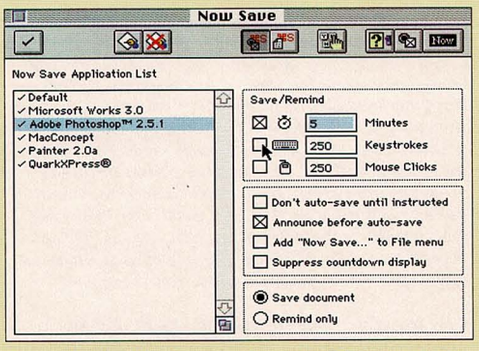
NOW UTILITIES 5.0

Price: £63.50. Upgrade from any version: £31.75.
Out: now.
Requires: System 7 or higher, 4 Mb of RAM. It also includes a PowerMac native version.
For more details contact Frontline on 0256 463344.

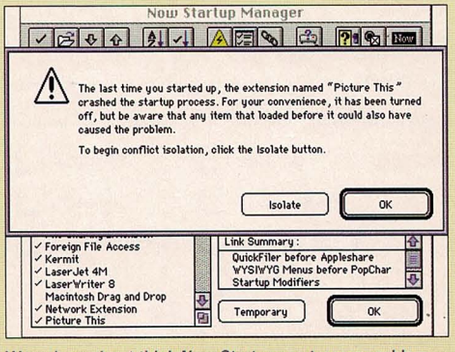
Features Bursting with useful stuff.	92%
Ease of use The volume of utilities can be confusing, but each individual one is straightforward.	85%
Documentation Not the clearest manual I've ever seen.	80%
Value for money Absolutely spiffing!	95%
MACFORMAT RATING	90%



Boomerang was a real swine to delete. Every time I threw it in the bin it just came right back out again!



Personally I don't find pressing [command] S too much of a struggle, but *Now Save* is a must for the absent-minded.


Now Startup Manager
The last time you started up, the extension named "Picture This" crashed the startup process. For your convenience, it has been turned off, but be aware that any item that loaded before it could also have caused the problem.
To begin conflict isolation, click the Isolate button.
Isolate
OK
Link Summary :
QuickFiler before Appleshare
WYSIWYG Menus before PopChar
Startup Modifiers
Temporary
OK

Wow, how about this! *Now Startup* can trace a problem, handle it, then inform you in plain English. I like it.

Free reader ads

If there's anything that you want, be it kit or software, look no further...

HARDWARE FOR SALE

■ Colour Classic 5/80, FPU, System 7.1, manuals, System software, disks, mouse, keyboard, dust covers and carrying bay. Light home use only. £700. Tel: 0477 537366.

■ Yarc NuSprint accelerator board for 3D rendering. Includes *MacRenderman* software and manual – £1,000 ono. Tel: 0274 511856 for Mr Goh or e-Mail: fin2n3aa@Ivcs-mac.novell.leeds.ac.uk

■ LCII 4/160, 14-inch Apple Trintron colour monitor, keyboard, mouse, manuals, System 7.1 – £700. South West London. Tel: 081 642 3665.

■ LCII 4/80, SVGA, StyleWriter II, 12 months old, extras, as new – £700 for quick sale. Kent. Tel: 0580 211133 (evenings).

■ PowerBook 145B 4/80, as new, complete, boxed with accessories – £670 ono. Tel: 0602 819225.

■ Performa Plus monitor, brand new and boxed with warranty – £140. Tel: 0254 57830 (after 7pm).

■ Sharp J x 450 colour scanner, A3 flat bed, 300 dpi, complete with GPIB board and cables – £1,000. Tel: 0293 538539.

■ Mac IIci 8/80 extended keyboard, mouse and 14-inch colour monitor, all boxed and in good condition. System 7 plus *HyperCard*. £1,400. Tel: 0453 731933.

■ LCII 6/40, VRAM upgrade, System 7 and 12-inch colour monitor, keyboard and mouse mat. In very good condition – £600 ono. Tel: 0779 812873 (Peterhead).

■ Hewlett Packard 510 printer (mono), as new – £160. Tel: 0268 415078.

■ LCII 4/40, 2 years old, monitor RGB 14-inch, LaserWriter 300, both new, plus *WordPerfect 3.0*, keyboard and mouse. Offers? Tel: 031 229 1051 (Edinburgh).

■ Portable 2/40 Active Matrix Backlit, carry case, System 7.1, Mouse – £300 ono. Very cool, sexy machine! Call Martin on 0923 467971, Reluctant sell. (Watford).

■ Performa 400, 6/80, monitor, keyboard, 150 CD, mouse, System 7.1, 1 year old, as new, lots of software – £600. Contact Mario on 0843 292276.

■ Mac SE with 4Mb of RAM. 20Mb HD, and Radius A4 full page display with tilt/swivel stand, mouse, keyboard, manuals, disks, etc – £650. Tel: 0732 359507 (Kent).

■ Mac II 5/40, System 7.1, extended keyboard and mouse, 12-inch greyscale high-resolution monitor – £350. Tel: 0273 820571.

SOFTWARE FOR SALE

■ *Space Guest IV* – £20. *Orbiter* (space shuttle simulator) and *Mission Starlight* – £15 each. Contact Robert (after 4pm) on 0273 820571.

■ *GreatWorks 1.0*, integrated package, eight modules, orginal disks and full manual – £35. Call Julian on 0392 210751.

■ *Night of the Dragon, SimCity, Tinies, Indy & Last Crusade, Lemmings, A-Train, SimLife, Red Baron, Kings Quest 5, PGA Golf, V for Victory*. £15 each or £150 the lot. Tel: 031 556 8009.

■ *Strata Vision 3D*, version 3, unregistered, RRP – £680 plus VAT, but will sell for £350. Adobe *Audition* (*Photoshop & Premiere*) – £150. Microsoft *Works* – £55. Tel: 0602 817935. Or by e-Mail: abduction@cosmos-uk.org.

■ *QuarkXpress V3.3*, brand new, shrink wrapped – offers. Mac Education Pack including *Mavis Beacon Typing, Kiddie Pix, Maths Blaster*, etc. £15 each. Contact Asif on 061 273 5704.

■ Adobe Type set of 30 typefaces, unopened – £40. Contact Richard on 0225 337326 after 6pm.

■ *RAM Doubler* – £25. *Sim Life* – £10. *Microsoft Flight Sim* – £20. All boxed, mint condition. Tel: 071 537 7504.

■ Adobe *Photoshop 2.5.1*, unopened and unregistered – £200. Contact Craig on 0376 550973 (eves) or 0376 321199 (day).

■ Games: *PGA Golf 2, Leisure Suit Larry 6, Willy Beamish*. £15 each or swap. All boxed as new. Contact Moon on 081 542 5025.

■ *Sage Bookkeeper*, unopened – £60. Tel: 071 266 0430.

■ *Cricket Presents 2.1*, sealed and unregistered – £50. *Stellar 7* – £15. Contact Jeremy on 0707 261210.

■ *UnderWare, Christmas Lemmings*, boxed and with manuals. Excellent fun! Tel: 0707 321558.

■ *SimCity 2000*, boxed as new – £15. Tel: 0207 272325.

■ Aldus *IntelliDraw*, unregistered with all manuals and video – £70. Contact Patrick on 0232 431677.

■ Adobe *Photoshop 2.5.1* unopened, unregistered. £250 ono. Tel: Craig on 0376 550973 after 6pm.

WANTED

■ Apple extended keyboard II, can part exchange with 9 month old standard keyboard, box, etc, plus cash. Tel: 081 868 8074 (after 6.30pm).

■ Colour scanner. Cash waiting! Second hand or liquidation (I can't afford a new one). Tel: 0784 481002.

■ *Prince of Persia* one manual or a photocopied version. Contact Tracey on 081 882 0299.

■ Macintosh PowerBook 100 4/40. Contact Tim on 0585 620819.

■ PowerBook 100 or 145 for circa £250 to £300. Phone Paul on 081 450 9411 ext 43 or evenings on 081 361 2739.

■ Please send your Icon to Tim at 2 The Chestnuts, Hertsford, Herts. If you send us ten icons that we haven't got we will send you a HD Disk.

■ Hitachi 15MVX monitor wanted, in any condition, but working if possible. Please call 0252 713477.

■ Apple Macintosh Image Writer II printer wanted. Must be in good working order. Tel: 081 548 1210.

■ LCIII plus monitor and keyboard. Tel: 0299 403292.

■ SE/30 or similar portable Macintosh and printer needed for college work. Required by disabled student with little cash. Will collect (West Berkshire). Tel: 0635 528798.

■ Apple Laserwriter IINT motherboard (or better). Exchange faulty board available. Contact Martin Mayer on 0734 461364.

SWAPS

■ Will swap Performa 200 in return for Performa 400 or Plus and will pay the difference. Must be in good condition just like my Performa 200. Tel: 021 954 7989.

■ Yet another Mac user who wants to swap shareware and PD by Post. Please write to: Samuli Sillansaa, Kaukomaantie 13, SF-28330 Pori, Finland.

■ CD-ROM available for swaps. I have

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USER GROUPS

Need hands-on help with a Mac problem? Want to swap shareware or freeware, or just meet other Mac enthusiasts? Try a user group near you...

- Artists Bulletin Board now on-line 081 778 6547. We specialise in obscure software and magazines. It's all free. Modem speeds 2400 – 9600, 24 hours. (MF24)
- New Mac User Group just starting up. We urgently need Mac-related literature, shareware, Public Domain and new members. Free membership to MACFORMAT readers. Can you donate a BBS program so that we can go on-line? Members asked for small monthly contribution to cover cost of BBS lines and newsletters (we are non-profit-making). Interested? Write to The Network, 11 Charnock House, Lancaster Court, Chorley, Lancs PR7 1PB. Or tel/fax Dave on 0257 265025 (BBS numbers will be posted to all applicants once software is obtained. (MF24)
- Aston Univ Mac UG, Birmingham. Tel: Ray Tier on 021 359 3611. (MF 23)
- A Mac user would like to start a BBS for other Mac users. I would like to talk to anybody who is interested in helping. I would also like to contact any Mac users in the West Country. Please write to: MacShare BBS, Lane End, Oak Tree Lane, Tavistock, Devon, PL19 9DA.(MF 23)
- Blackburn Mac UG. Tel: Roger Moreton on 0254 670043. (MF 22)
- Bournemouth Mac UG. Tel: Barry Cheesman on 0202 715859. (MF 22)
- Bristol (BAUD). Tel: Malcolm Ingsley on 0454 616846. (MF 22)
- Cambridge Apple UG. Tel: Ian Archibald on 0223 311157. (MF 22)
- Cancer Research/RMH UG, Cancer Society/RMH. Tel: Raymond Henry on 081 643 8901 (Bulletin Board x 4636).
- The Computer Textile Design Group. The essential link between computer and textile designer. Contact Dee Chester, 12 Le Brun Road, Eastbourne BN21 2HZ. Tel: 0323 725781.(MF24)
- Edinburgh Apple UG. Tel: John Beatie on 031 554 5096.
- Gateway UG, Norfolk. Tel: Verne Anderson on 0638 513000.
- Glasgow Mac UG. Tel: Stephen Broadfoot on 041 339 6646.
- Highland Mac UG (HIMUG), Scottish Highlands. Tel: Bob Warner 0463 715322.
- Liverpool Apple UG. Bulletin Board: 051 949 0307
- London Macintosh User Group. Facilities include: telephone support for full members, shareware at reduced prices, monthly magazine and monthly meetings in London presented by leading hardware and software manufacturers. For full details write to: PO Box 3550, London, SE4 1RT. Tel: 081 690 2904. (MF 23)
- MacAssist, Cardiff and district. Tel: Nigel Arrighi on 0222 224682 (MF 22)
- Mac user group (nationwide) All levels. Non-commercial. Newsletter, shareware, etc. Send large SAE for sample newsletter to Ref MF, 9 Burrill Drive, Wiggington, York YO3 3ST. (MF 23)
- Midapple, West Midlands. Tel: William Watson on 0384 277921.
- MidApple – Apple 2 and Macintosh user group meets monthly in West Midlands. SAE to MidApple, 24 High Street, Wall Heath, Kingswinford, DY6 0HB for details.(MF 23)
- Midland Mac UG, Worcestershire. Tel: Ivan Knezovich on 0299 402631.
- North West Apple CC – Cheshire area, North. Telephone: Mr George Evans on 0270 583714.
- Nottingham Mac UG. Tel: David Nicholson-Cole on 0602 455077.
- Poole Mac User Group. Tel: Bob Lister on 0202 684441.
- SE Essex Mac User Group. Contact Michael Foy on 0702 468062.
- Southampton Mac UG. Tel: Geoff Parsons on 0703 2244957.
- Southern Mac UG, Salisbury and district. Tel: Roger Ford on 0722 780102.
- Southwest Mac User Group, Bristol. Tel: John Elver on 0272 693119.
- Staffordshire Polytechnic Mac User Group, Staffordshire. Tel: Mark Stiles on 0785 52331.(MF 22)
- Sussex User Group, Hastings, East Sussex. Tel: Garry Nevin on 0424 714110.
- The United Shareware User Group meet Portuguese Mac users and our Shareware – Pra. Ferreira de Castro 1-3 Dto, Coruaxide 2795, Portugal (MF 19)
- West Midlands User Group. Tel: Danny Torbica on 0902 336172.(MF 22)
- Yorks and Humberside Mac UG. Tel: Derek House on 0423 358853.(MF 22)
- Mac User group, covers all aspects of Mac Scene Free membership and monthly newsletter. For details write to Sonic, 11 Charnock House, Lancaster Court, Chorley, Lancs, PR7 1PB. Or by e-Mail on Cosmos BBS 'Dave Andrews' (I'm the programming Forum Moderator) or on Portland BBS 'Dave L Andrews, or on the Internet: sonic@cosmos-uk.org. Don't forget you pay nothing! (MF 25)

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Spaceship Warlock, Journeyman, Sherlock Holmes, Worldview seaview and *Grandma and Me*. Contact Mark on 0602 225873.

- I will Swap *PGA Tour Golf* for *Civilization*, or I will sell it for £15. I'm open to offers on a swap. Contact Mark on 0743 232242.
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- Citizen's Advice Bureau,
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- County Court (ask about the 'small claims procedure').

The Mac is dead!

Apple has got it wrong and IBM is moving in for the kill, says MACFORMAT reader Benjamin Muller...

IBM stands for 'Infinitely Better Mind', and APPLE stands for 'Awkward, Probably Pathologically Limited Evolution'. I am a sworn fan of the Mac since its appearance ten years ago, but *the Mac is dead!* The great revolution started and ended back in the Mac 128. The only innovation from Apple during ten years was putting more power in the Macs, and the only major System evolution was MultiFinder (switcher, actually). Software houses were the real revolutionaries and they were putting in more innovations between versions 1.0 and 2.0 than Apple in its entire System and hardware for all those years. Yet for every little cosmetic change, Apple charged prices out of all proportion, and the only reason it could get away with it was that there was no alternative (unlike in the PC market).

IBM made a very clever calculation in the last few years. Its logic goes like this: the Mac has reached its pinnacle; DOS is dead; Windows is a pale cosmetic imitation of the Mac. What lies in the future? Something built on the best of what is available. IBM did not want to team up with Microsoft, because it had learned its lesson after MS-DOS. So it decided to offer a so-called 'salvation' for Apple, but its real intention was to lure Mac faithfuls to a new Mac-like system *ultimately controlled by IBM.*

In this, IBM has succeeded brilliantly. Apple gave it and Motorola all its graphic interface know-how. And IBM is coming out with PReP (PowerPC Reference Platform, based on an Apple philosophy of united platforms for all developers), a platform that is surely going to replace the ageing Mac, DOS and Windows platform. That's why most developers are not committing themselves to the Mac version of PowerPC. Their reasoning is as follows: our current programs run at Quadra speeds on real Macs or on PowerMacs under emulation. If we have to rewrite them in PowerPC 'native' forms, we will gain much more by doing so for PReP. In the first place, the market is likely to be larger. Second, there is no gain in power or graphics by using the Apple format (unlike before, when developers had to compare QuickDraw to Windows). Third, Apple is going to be obliged to conform to PReP in the near future anyway, if it wants to survive in the emerging PowerPC market. Yet again, IBM is going to rule the roost.

Benjamin Muller
Antwerp, Belgium

OVER TO YOU...

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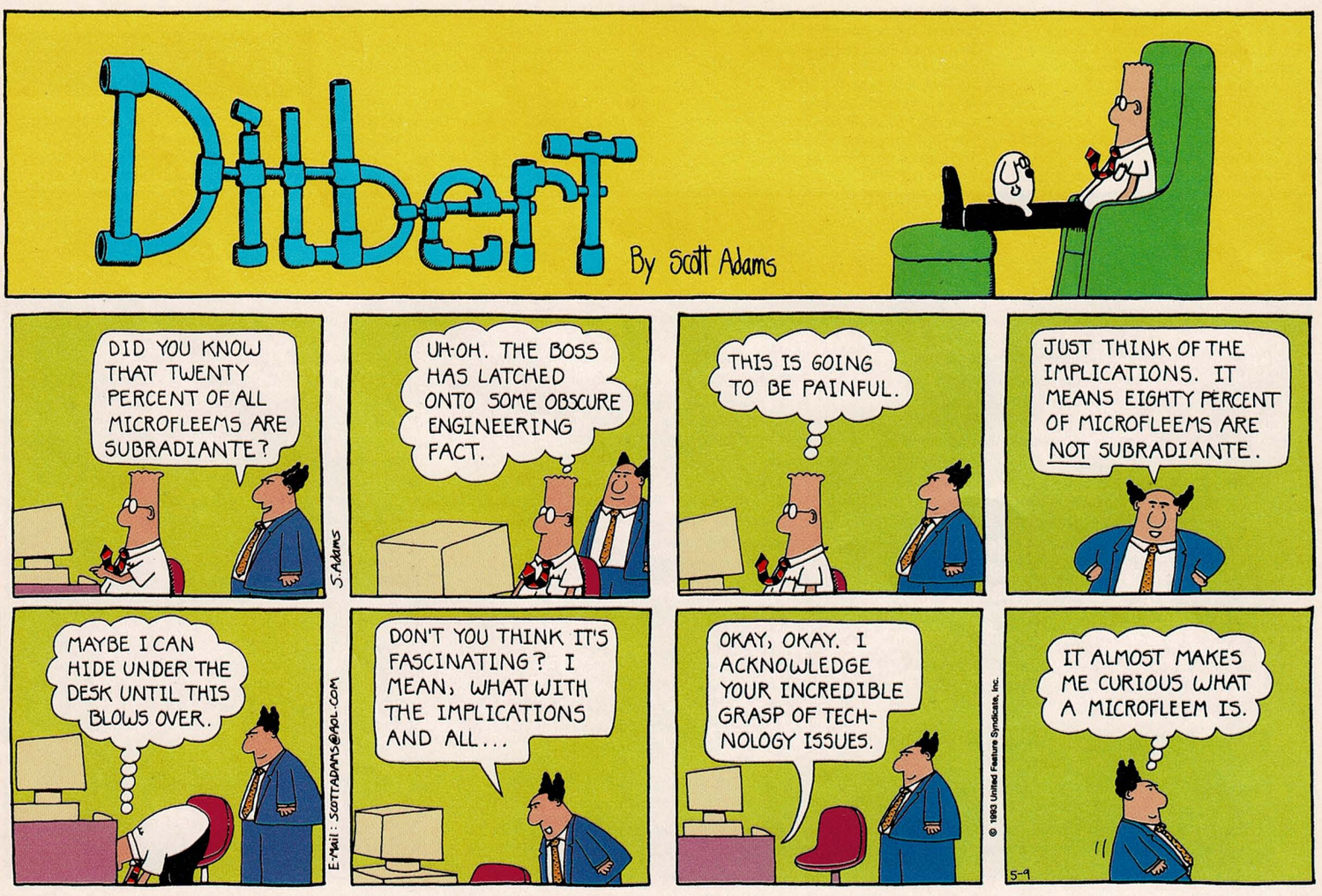
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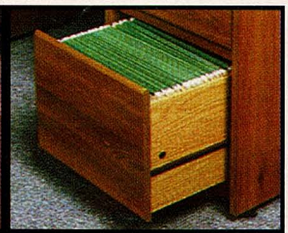

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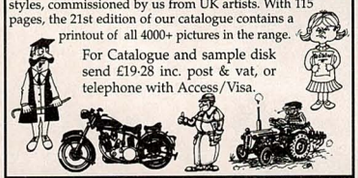

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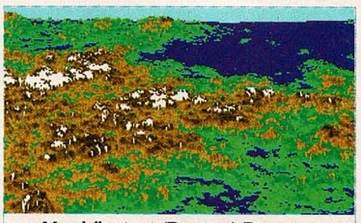

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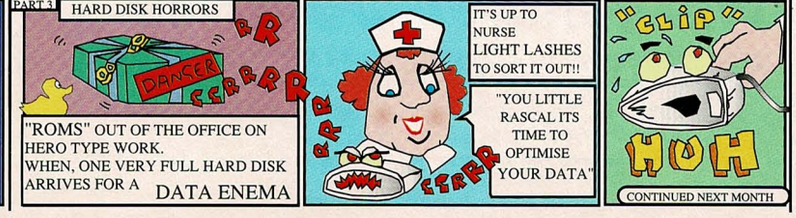
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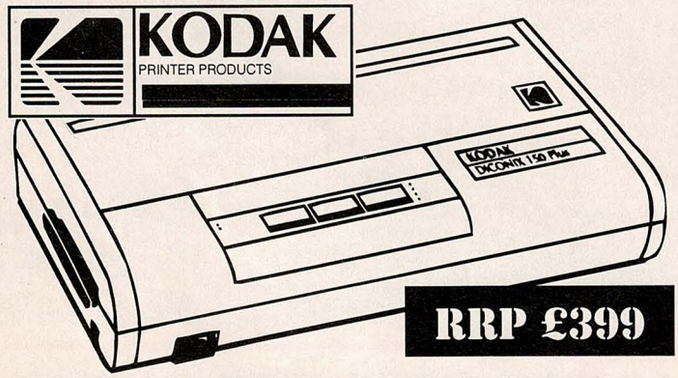

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35,068

Next month

Brave New Worlds

Create your own reality, or visit exotic places round the world! You can do it all on your Mac with landscape-generators, 3D-renderers and 'virtual landscapes' on scenic CD-ROMs. Explore these exciting new worlds next issue!

Now you're cooking

The latest multimedia titles on CD-ROM – everything from electronic cookbooks and 'head candy' to Shakespeare and American poetry!

PLUS The latest news, practical how-to's and authoritative reviews ■ The hottest shareware reviewed (and yours to try with the CD-ROM edition) ■ MACFORMAT's regular coverage of just about everything you can do with your Mac, from DTP, graphics and spreadsheets to music and games!

ARE YOU A WINNER?

Back in MACFORMAT 15 we gave you the chance to win one of ten copies of *HomePublisher*, the easy-to-use desktop publishing package created by the makers of *PageMaker* (we're not supposed to use their name – it's some sort of contractual thing) and published by Iona Software. The ten lucky winners are Tom Russ of York, the mysteriously Christian-nameless Ms B P Bramwell of London SW16, the equally first-name-deprived K Toru of Northampton, Mikko Turunen of Tampere in Finland, Jan-Anders Lindqvist of Västra Fröndula in Sweden, Marian Lane of Cork in Ireland (this is getting dangerously international here), Ian Kennedy of Wimbledon (that's better), Iain M Andrews of Ayrshire, J Yeats of London W14, and (my favourite) 'The Headteacher' of Leven CD School, Beverley, North Humberside (mind if I call you 'The'?). Well done to all – the prizes are on the way.

More small talk from the Tiny Zone...

Hello and welcome again to the Tiny Zone, the section of MACFORMAT that gives a new meaning to the term 'making a small point'. This month it's been all fun and games around the office. We've been trying to get the mag out and find time to get along to Apple Expo as well, preparing to pack for yet another office move (it's like musical chairs around here, you know), and spotting Macs all over the place. Just after this issue's Optical Character Recognition feature was completed, for instance, we happened to catch a programme on the Beeb about the Dead Sea Scrolls. These scholars, you see, have come up with a way to read almost completely blackened scroll fragments by scanning them into a computer and enhancing the text while filtering out the charring. Now that's what we call Optical Character Recognition! It needs custom-designed software, naturally, but guess what computer you could clearly see them using? A Mac, of course! And then Catherine arrives for work one morning and casually mentions in conversation that Sky TV is giving away ten Macs in some sort of competition to promote its new 'creative channel'. (Means nothing to me. Nobody else around here has Sky...) And someone noticed that in their recent concerts Pink Floyd were using PowerBooks to run their lighting and sound kit. So here's a Tiny Zone compo: there's a free MACFORMAT binder for the most unusual (verified) Mac use you can spot!

MACFORMAT 20 goes on sale on Thursday 1 December

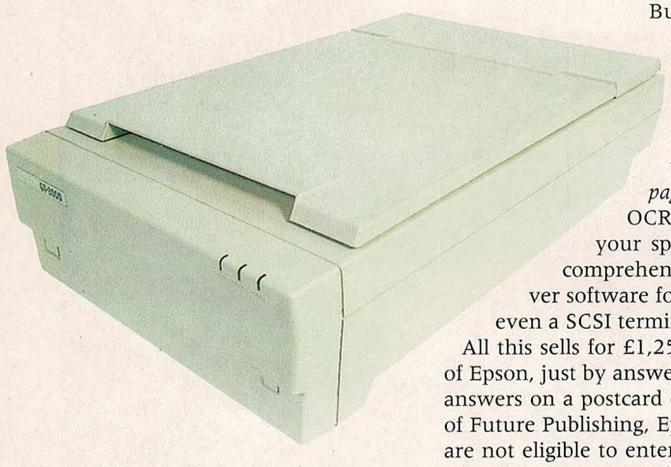
Available with high density floppy disk or CD-ROM. Ask your newsagent to save you a copy or see the insert in this issue for our special subscription offers

Win an Epson GT-8000 scanner

Whether you want to capture images for graphic work or scan text for OCR, Epson's GTX-8000 package has all you need, including OCR software and Adobe *Photoshop LE*. It's worth £1,250, and you could win one here!

Imagine what you could do with a top-quality flatbed scanner. You could capture black and white line art – from cartoons and clip art to maps and diagrams – ready to manipulate in your art package. You could import colour photographs and artwork to incorporate in your DTP pages or posters. You could even scan whole faxes, letters and other documents, then use OCR software to turn them into text files you can open in your own word processor.

All this and more is at your fingertips with the GTX-8000 bundle from Epson. At its heart is the Epson GT-8000 flatbed scanner, which boasts fast single-pass scanning (up to a cracking six pages per minute for line art and text), output resolutions from 50 right up to 1,600dpi, full 24-bit colour support for capturing images in up to 16.7 million colours, and a zoom feature offering reductions to 50% and enlargements up to 200%.



But that's not all! The GTX-8000 bundle isn't just for capturing scans – it also includes all the software you need to really *do* something with them – Adobe *Photoshop LE*, the 'low-calorie' version of the industry-standard image-processing program (all the essential features without the high-end memory requirements!), plus *Omnipage Direct*, the entry-level version of Caere's leading OCR software. You can control scanning from within your specialist application software, or use Epson's own comprehensive *Scan! II* utility supplied. Also included is driver software for the scanner and all the cables you need – there's even a SCSI terminator.

All this sells for £1,250, but you can win a GTX-8000 bundle, courtesy of Epson, just by answering the three easy questions below! Send us your answers on a postcard or the back of a stuck-down envelope. Employees of Future Publishing, Epson and associated companies, and their families, are not eligible to enter. No multiple entries are allowed, unless they are on an A4 photocopy of the most photogenic part of your anatomy. Please state if you don't want your name added to a mailing list. The editor's decision is final, and the closing date is Friday 9 December.

THE QUESTIONS

1. The Epson GT-8000 scanner can capture images in how many colours?
(a) 24
(b) Up to 200
(c) Up to 16.7 million

2. The GTX-8000 bundle includes *Omnipage Direct* OCR software. What is OCR?
(a) Optical Character Recognition
(b) Oral Code Readout
(c) Overly Complicated Rates

3. Which of the following is *not* in the GTX-8000 bundle?
(a) Epson's GT-8000 scanner
(b) A Power Macintosh 8100
(c) Epson's *Scan! II* software

Just send your entry on a postcard or stuck-down envelope to: 'The Scantastic Epson Compo', MACFORMAT, 30 Monmouth Street, Bath BA1 2BW.

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16GB turboDAT £884

inc Retrospect 2.1, installation kit

MacUser Awards 1993 WINNER

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tape	external	media
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hard disks	seek	int/ext
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330	12	£190/262
500	12	£236/298
700	12	£272/348
1000	8.5	£434/498
2000	9	£834/838
4000	9	1668/1748
9000	10	2680/2780

seek times are average, "effective" seek times are all faster. All drives are fast SCSI2.

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prices include disk	drive	media
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230MB Optical	£598	£29
1.2/1.3GB MO	1398	£64

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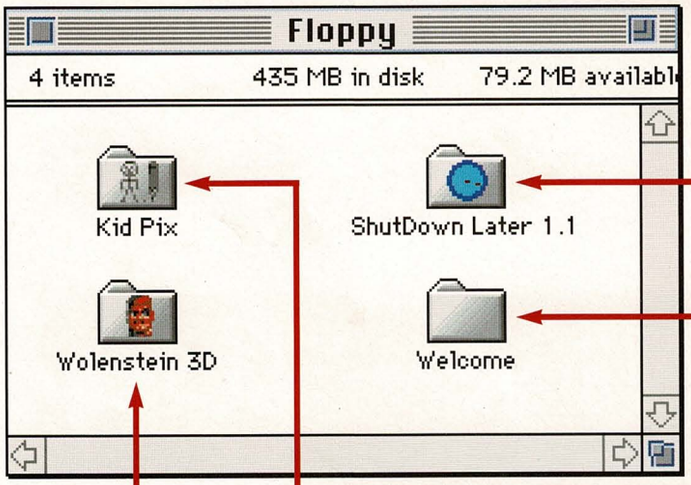
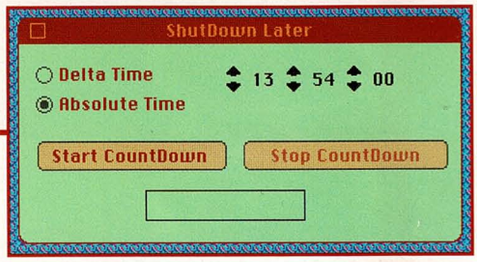
MACFORMAT

ON THE DISK THIS MONTH...

Be among the first to experience the stunning graphics and sound effects of the Nazi-blaster Wolfenstein 3D. Get arty with Kid Pix, and personalise your Mac with these two great utilities: Welcome and ShutDown Later

MACFORMAT
DISK 19
DEC 94
Wolfenstein 3D
Kid Pix 1
Check out the silence as your kids get into the complete version of this fantastic drawing program for juniors
Test your blasting skills to the limit and deal death to hordes of evil Nazi troops with three complete and bloody levels of this exhilarating new 3D shoot-'em-up!
Welcome
Customise your startup screen to give you the greeting of your choice
Shutdown Later
Set a specific time for your Mac to shut down or restart with this utility
See back cover of magazine for more details & compatibility information
OVER 2MB OF GREAT SOFTWARE!



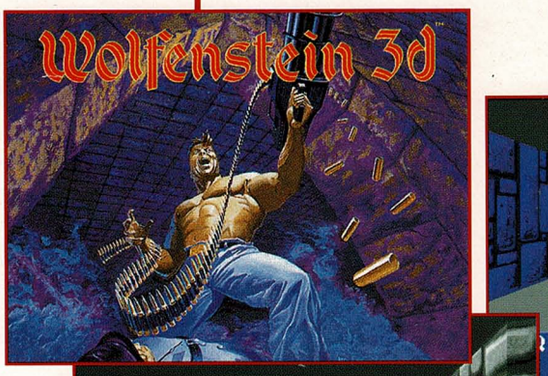


SHUTDOWN LATER 1.1

You can now instruct your Mac to shut itself off at any time you want, even when you're not there. Requires: any Mac, System 6.0.7 or later

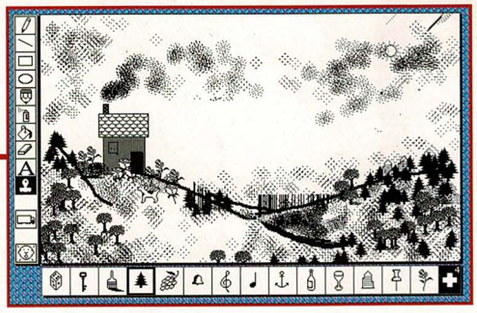
WELCOME

Customise your startup screen with a greeting of your choice with this easy-to-use utility. Requires: any Mac, System 6.0.7 or later



WOLFENSTEIN 3D

Heralded as one of the best games on the PC, Wolfenstein 3D has been improved for the Macintosh and is set to make a big name for itself. Try out the first three fully playable levels of the game and deal death to the evil Nazi troops intent on your destruction. Requires: LCII or better, 12-inch colour monitor, 2,300K of free RAM, System 6.0.7 or later



KID PIX

This wonderfully enchanting drawing package will charm children and adults alike. Try it! Requires: any Mac, System 6.0.7 or later